SUDAN

MAY 20, 2025

This document is part of a larger research project on African gold flows. For information on data sources, methodology or recommendations, please refer to SWISSAID's 2024 report On the trail of African gold

COUNTRY TYPE

Main characteristics: very important gold producer with a large artisanal sector and a smaller industrial one; declared gold export to the United Arab Emirates; high quantities of ASM gold smuggled to neighbouring countries and to the United Arab Emirates.

Gold production

- Artisanal and small-scale mining
    - declared: 53.6 tonnes in 2024
    - non-declared (estimate): 15–20 tonnes in 2024
- Industrial (or large-scale) mining: 5.7 tonnes in 2024

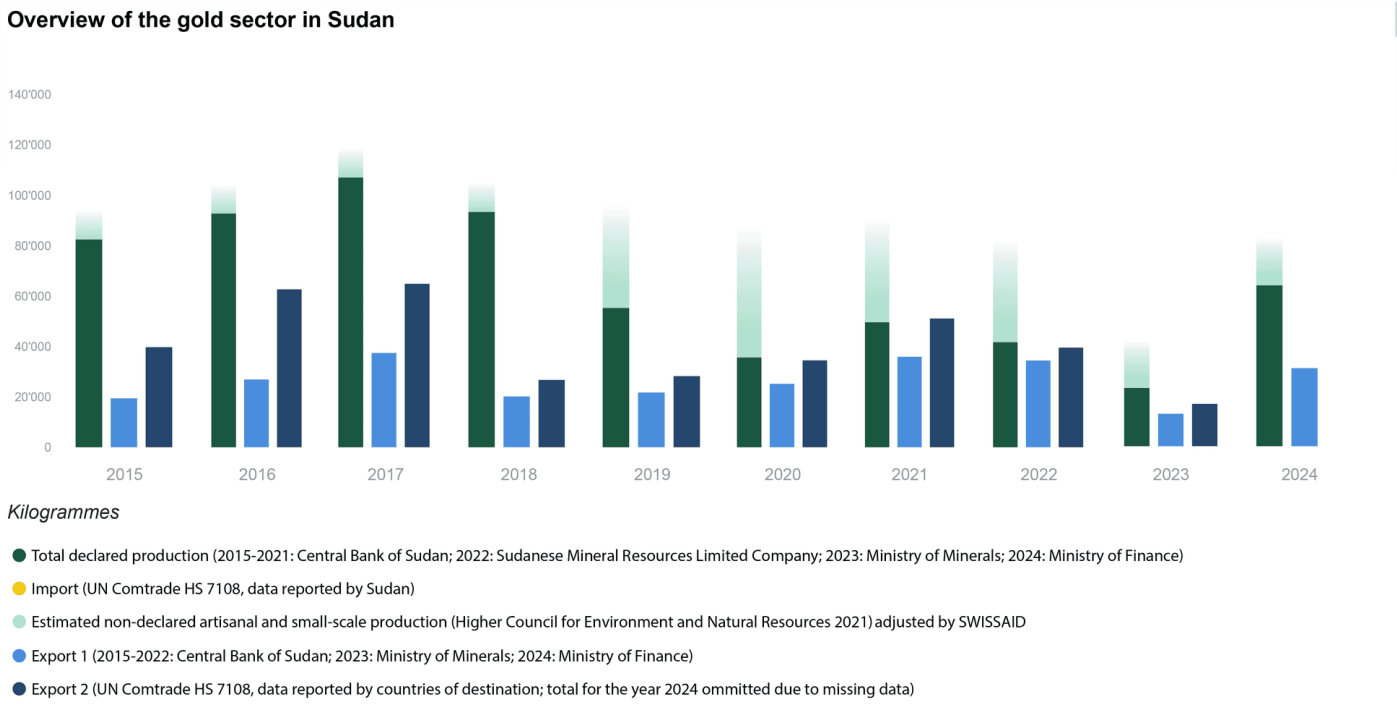
Gold exports

- Declared: 31 tonnes in 2024
- Non-declared (estimate): more than 40 tonnes in 2024

EITI member: no

Reports to UN Comtrade: yes, but with aberrations and omissions

OVERVIEW


Overview of the gold sector in Sudan
140'000
120'000
100'000
80'000
60'000
40'000
20'000
0
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
Kilogrammes
Total declared production (2015-2021: Central Bank of Sudan; 2022: Sudanese Mineral Resources Limited Company; 2023: Ministry of Minerals; 2024: Ministry of Finance)
Import (UN Comtrade HS 7108, data reported by Sudan)
Estimated non-declared artisanal and small-scale production (Higher Council for Environment and Natural Resources 2021) adjusted by SWISSAID
Export 1 (2015-2022: Central Bank of Sudan; 2023: Ministry of Minerals; 2024: Ministry of Finance)
Export 2 (UN Comtrade HS 7108, data reported by countries of destination; total for the year 2024 ommitted due to missing data)

Sudan is one of the most important gold producers on the African continent. The country's gold sector, largely under the control of the state apparatus and military factions, has been a key source of livelihoods for millions of artisanal miners since the secession of South Sudan in 2011. However, since the outbreak of the civil war between the Rapid Support Forces (RSF) and the Sudanese Armed Forces (SAF) in April 2023, both belligerents' parties are using gold revenues to finance the conflict.

Artisanal and small-scale gold mining (ASGM) dominates Sudan's gold sector, accounting for 91.5 per cent of total declared production in 2024. Tailing processing companies, which are often linked to business interests of the political elites and armed groups, play a significant role in that sector. By contrast, industrial gold mining holds only a minor share of the market. The reliability of official production figures is questionable due to changes in methodology, the substantial influence of militia groups on the sector, and the fact that mining sites are spread out over a vast territory with only weak administrative presence. Despite conflicting estimates, based on available data and research, SWISSAID estimates that Sudan produces between 70 and 90 tonnes of gold per year.

Several observations can be made based on the graph above. Firstly, both production and exports have fluctuated widely in the last decade and the non-declared production has increased over the years. In 2023, the civil war in Sudan

significantly impacted ASGM, leading to a decrease in production and export. However, production increased again in 2024 and officially reached 64 tonnes at the end of that year.

Secondly, there is a striking difference between the official production figures and the official export figures. The graph suggests that **between 50 and 70 per cent of Sudan's gold production is smuggled out of the country each year**. SWISSAID calculated that **at least 400 tonnes of gold have been smuggled out of Sudan between 2012 and 2024**. About half of this smuggled gold has been shipped directly to the United Arab Emirates (UAE) and, to a lesser extent, other countries like Russia and the other half has been shipped to neighbouring countries before ending up mainly in the UAE.

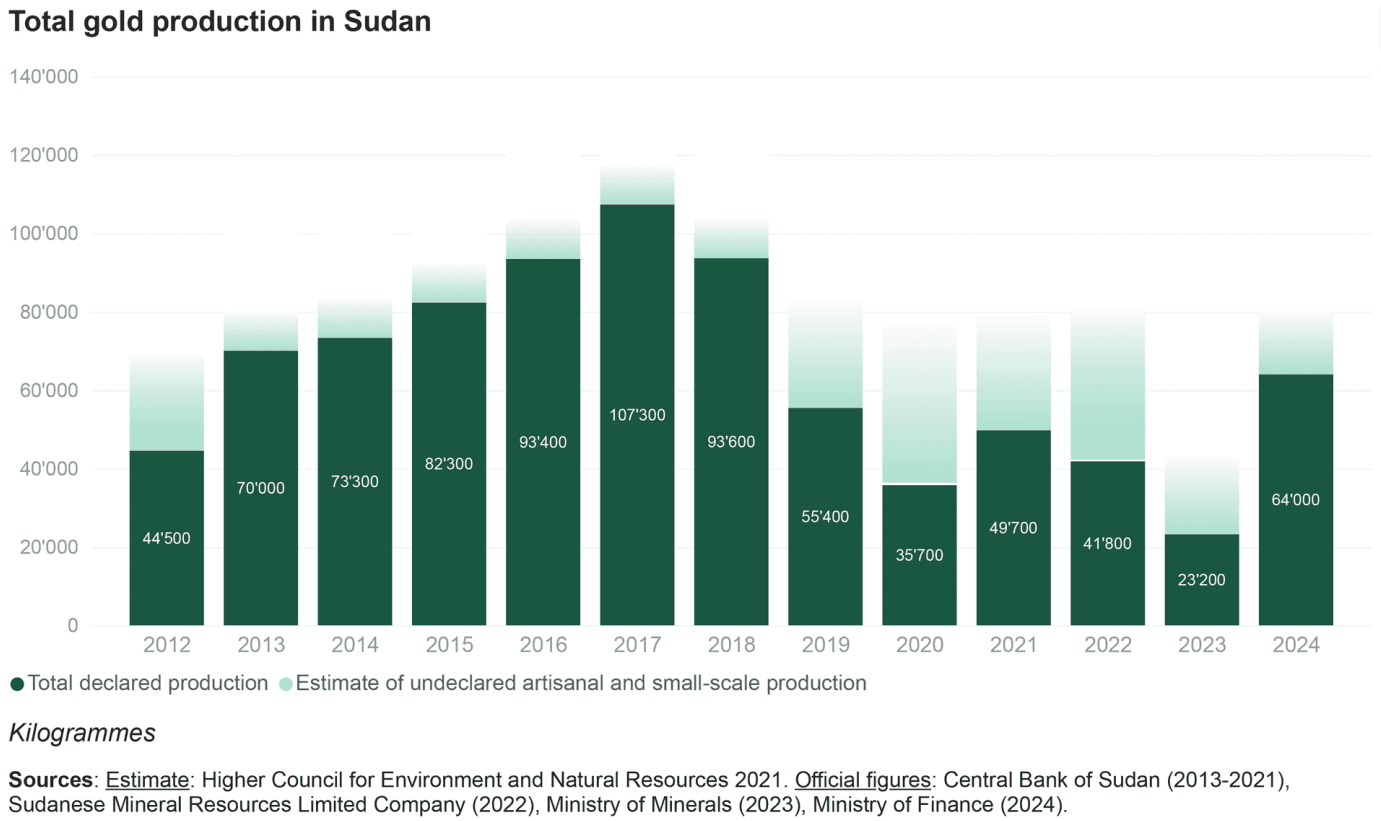
Thirdly, the gold exports reported by the Sudanese authorities are much lower than their mirror image, namely the imports of gold from Sudan reported by the authorities of the other countries. SWISSAID calculated that **between 2012 and 2023, around 200 tonnes of gold has been smuggled from Sudan and declared as imports in the partner countries**, of which 182 tonnes in the UAE. That country is the primary destination for both declared (95–97 per cent of the official exports) and smuggled gold exports from Sudan. This smuggling, facilitated by alliances and support from neighbouring countries, contributes to Sudan's significant revenue loss.

Since the outbreak of the war in Sudan in April 2023, gold smuggling has increased significantly, particularly via neighbouring countries – but, once again, from these countries, the gold is most often transported to the UAE. Significant quantities of gold from SAF-controlled areas are transported to Egypt, whereas gold from RSF-controlled areas finds its way into Chad, Libya, South Sudan and the Central African Republic.

GOLD PRODUCTION

In the early 2010s, Sudan's gold rush marked a pivotal economic shift from oil to gold, reshaping the country's political landscape as various factions seized control of lucrative gold mining sites. Since then, the Sudanese gold sector has predominantly been under the control of the political economic elite and armed groups. However,

the outbreak of the civil war in 2023 has further intensified the partition of Sudan's gold mining area between the RSF and SAF.

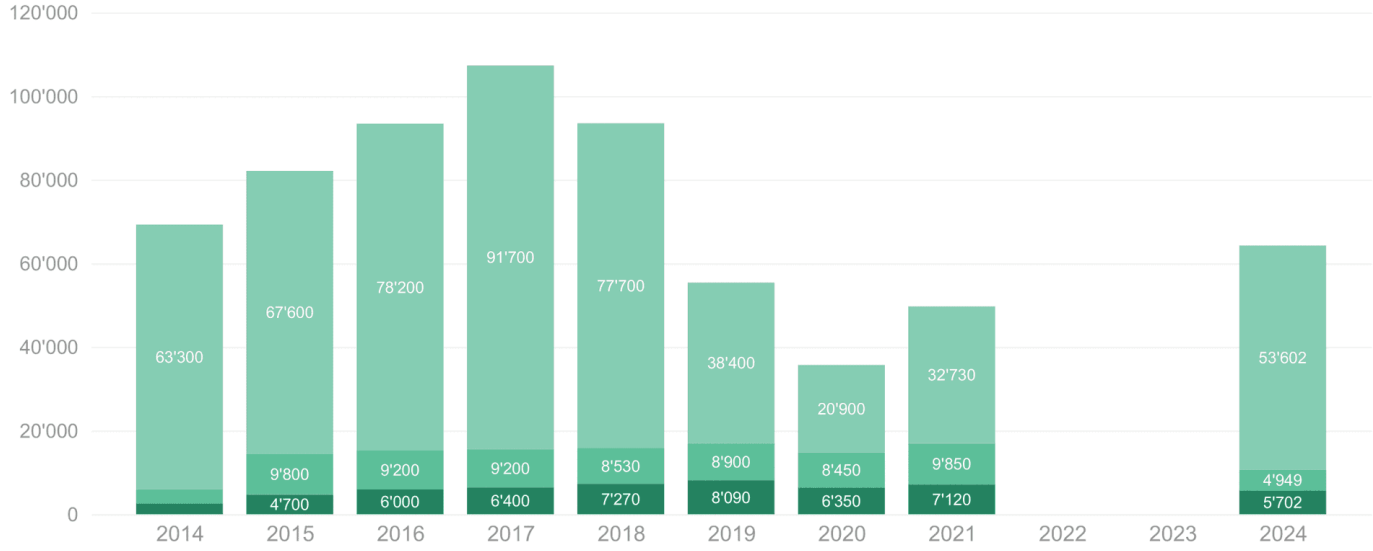


Sources: Estimate: Higher Council for Environment and Natural Resources 2021. Official figures: Central Bank of Sudan (2013-2021), Sudanese Mineral Resources Limited Company (2022), Ministry of Minerals (2023), Ministry of Finance (2024).

Over the past twelve years, Sudan's official gold production has experienced significant fluctuations. Fuelled by the gold rush, it steadily increased until 2017, reaching a peak of 107 tonnes. However, subsequent years witnessed a substantial decline in official figures, accompanied by a high level of unreported production. Notably, after a substantial reduction in 2023 due to the ongoing civil war (23 tonnes), official gold production experienced a sharp rebound in 2024. It's worth mentioning that since April 2023, the official gold production figures exclude gold produced in the RSF-controlled areas, for which no official data is available.

The main publicly available sources for Sudan's gold production statistics are the Central Bank of Sudan (CBoS)'s annual reports (Central Bank of Sudan n.d., accessed in April 2025) and public communications by the Sudanese Mineral Resources Company (SMRC), the Ministry of Minerals and the Ministry of Finance. To gain access to data disaggregated by production type, SWISSAID reached out to the Ministry of Minerals and the SMRC. While the Ministry didn't respond, the SMRC refused to share their data. Nevertheless, SWISSAID managed to obtain access through alternative sources, including the SMRC's annual reports for 2020, 2021, and 2024, which contain key figures on the gold sector in Sudan (these reports are not available online).

Declared gold production in Sudan disaggregated by type of extraction



Kilogrammes

Sources: Annual Reports 2020, 2021 and 2024 of the Sudanese Mineral Resources Limited Company

- Declared artisanal and small-scale production ("Traditional mining")
- Mining waste production ("Mining waste companies")
- Industrial production ("Franchise companies")

The SMRC classifies gold production in Sudan in four categories: franchise companies, mining waste companies, small mining, and traditional mining[1]. The latter three fall under the category of artisanal and small-scale gold mining (ASGM). In fact, the vast majority of the gold processed by mining waste companies, also known as "processing companies", originates from mining markets where traditional miners bring their gold ores (see below).

The "small mining" category is absent from the graph above because it produces very small amounts of gold. Between 2015 and 2020, its annual production was less than 100 kg, and in 2024, it only produced 111 kg (as per SMRC annual reports 2020 and 2024). As explained by the SMRC, "Small mining companies are companies that operate in areas of 15 km and use medium-sized machinery, and most of them produce minerals other than gold"[2].

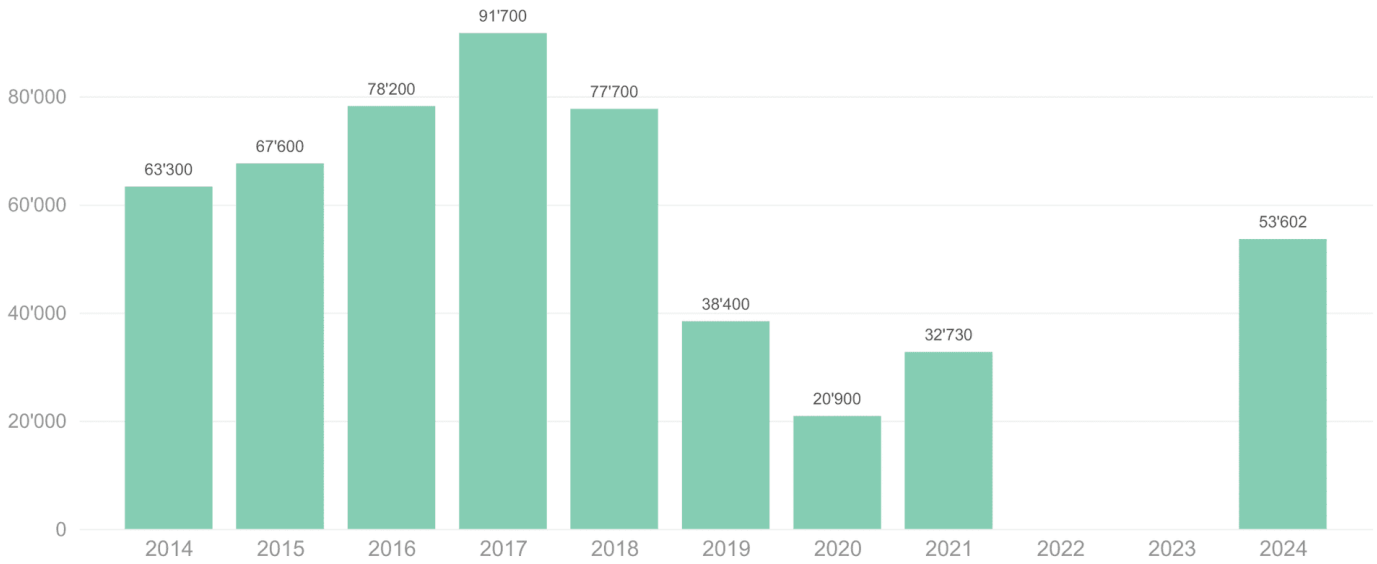
As illustrated in the graph above, ASGM is by far the largest type of gold produced in Sudan, accounting for 91.5 per cent of total declared production in 2024[3]. This is due to the fact that ASGM experienced a boom in Sudan, whereas industrial gold mining struggled to develop.

ARTISANAL AND SMALL-SCALE PRODUCTION ("TRADITIONAL MINING")

Artisanal and small-scale gold mining in Sudan started to increase in the 1990s (HCENR 2021: 54). In the early 2010s, a gold rush swept across large parts of the country due to a confluence of factors, including a challenging economic climate, escalating international gold prices, and the accessibility of affordable equipment (such as metal detectors, mechanised sieves, and mills) (Chevrillon-Guibert, Ille, and Abdelrahman 2024). This marked a turning point for the country and its economy: gold progressively became a source of revenue for millions of Sudanese. The Sudanese government initially tried to curb some forms of ASGM, but eventually adopted a laissez-faire approach, neither encouraging nor opposing the development of ASGM alongside its objective of developing industrial gold mining (Chevrillon-Guibert, Ille, and Abdelrahman 2024). After initially prohibiting most of the activities of artisanal miners in the new mining legislation (the Mineral Resources and Mining Development Act), introduced at the end of the 2000s, the Al-Bashir regime gradually began to tolerate them a few years later, recognising their growing economic significance (Chevrillon-Guibert 2016). In the mid-2010s, faced with the slow development of the industrial sector, the government sought to take control of ASGM (Chevrillon-Guibert, Ille, and Abdelrahman 2024).

Nowadays, ASGM is widespread in most parts of Sudan and employs millions of people. According to the Minamata Convention Initial Assessment, there are about 44,296 mining wells spread over 244 sites in 14 out of the 18 states of Sudan (HCENR 2021: 54). While Darfur, comprising five states, is a significant gold-producing region, the Red Sea State stands out as the largest gold producer in the country (Larsen et al. 2024). There are no exact figures on the number of artisanal miners in the sector, only estimates. At the onset of the gold rush in 2010, it was estimated that Sudan had approximately 1 million artisanal miners (Chevrillon-Guibert et al. 2020: 128). The Ministry of Minerals estimated that the gold mining sector employed 2 million people (Al Jazeera 2025), while Mohamed Salah Abdelrahman, a Sudanese researcher, estimates than 2.8 million people are directly engaged in gold digging and about five million in associated professions (Abdelrahman 2023).

Declared artisanal and small-scale gold production ("traditional mining") in Sudan



Kilogrammes

Sources: Annual Reports 2020, 2021 & 2024 of the Sudanese Mineral Resources Limited Company

The analysis of the graph depicting the declared gold production from traditional mining in Sudan reveals two crucial aspects. Firstly, the SMRC's figures indicate that traditional miners officially produced 91.7 tonnes of gold in 2017. This figure represents the highest annual quantity of ASGM declared production registered for an African country in the past decade, surpassing even Ghana and potentially being one of the largest, if not the largest, in the world. It raises questions on the methodology used to collect data on ASGM production in Sudan. The second issue is the significant fluctuation in production figures. The production steadily increased until 2017, followed by a sharp decline and several fluctuations. Therefore, it's crucial to analyse whether these official figures accurately represent the actual production or if they conceal substantial quantities of undeclared production.

Officially, traditional mining accounts for 84 per cent of the total gold declared production in Sudan in 2024[4]. However, since mining waste companies process gold extracted by artisanal miners, their production figures should also be included in this category. Taking this into account, artisanal mining represented 91.5 per cent of the total declared production in Sudan in 2024. This highlights the major role ASGM plays in Sudan.

The limited reliability of official production figures

Figures publicly presented by Sudanese authorities as official production figures for traditional mining are, in reality, **largely based on estimates**. SWISSAID discovered this while reading an SMRC annual report that mentions a "methodology used to estimate traditional mining production" without giving details[5]. Questioned by SWISSAID about this methodology, a representative from the SMRC indicated that there had been a change in 2018: "The previous estimation methodology for calculating traditional mining production was based on the average concentration of gold metal in random mining areas, in which most of the mining was surface, where the concentration of one sack of stone was six grams of gold. However, recently random prospecting operations have begun in expanding areas with a low concentration rate, and through experiments and analytical studies, it has been concluded that it is necessary to modify the methodology for estimating traditional mining production by three grams of stone"[6]. In other words, official estimates are based on the percentage of gold per sack and the number of sacks declared at gold markets.

This methodology is questionable. The purity of gold per sack varies depending on the type of extraction (e.g. surface versus underground) and the quality of the vein. Moreover, the purity of the gold wasn't suddenly reduced by half when the SMRC lowered the reference figure from 6 grams per sack in 2017 to 3 grams per sack in 2018. Therefore, the figure for 2017 is likely overestimated compared to reality. The real purity had most likely decreased around the mid-2010s, when miners were confronted with a lack of gold at the surface and obliged to dig[7]. However, this methodology is much more precise than others used to measure declared ASGM production in other African countries. In some countries, like Mali, for instance, the same, more or less arbitrary figure has been used for many years. In others, such as Ghana, export figures were simply used as a proxy for production figures (SWISSAID 2024). According to Raphaelle Chevrillon-Guibert, researcher at the Institut de Recherche pour le Développement (IRD), estimates of gold purity in Sudan were particularly scrutinised because taxes on gold were calculated per sacks of ore, not on the gold extracted[8].

The SMRC recently changed methodology again, but without indicating when exactly. According to the SMRC representative contacted by SWISSAID, "Currently,

traditional mining production is calculated accurately and realistically through a registration form for gold produced in traditional mining markets"[9].

Non-declared production – Analysis of fluctuations

Cross-analysis of data on gold production from traditional mining in Sudan shows that there are significant quantities of non-declared production in certain years. Before going into details, it is important to define what can be considered as informal or non-declared production.

In Sudan, it is impossible to determine the amount of gold that has been formally and informally extracted because production data isn't collected at the mine level but at the market level. Thus, SWISSAID considers non-declared production as the gold that has not been declared at the markets. Some artisanal miners work outside of concessions, while others work on small concessions. Some even work on larger concessions, where they are sometimes contracted by franchise companies.

Official figures apart, there are very few estimates of the total amount of gold produced by artisanal and small-scale miners in Sudan. In 2018, Musa Karama, the Minister of Industry and Trade, declared that Sudan produced 250 tonnes of gold in 2017, and not the 105 tonnes reported as official statistics (Al Raqraq 2018; Abdelrahman 2023). This figure seems unrealistic and overestimated. Another estimate from the authors of the Minamata Convention Initial Assessment seems more realistic. They estimate that the annual production of artisanal gold mining in Sudan is 71 tones (HCENR 2021). Although there is no information about the methodology used to calculate this figure, it serves as an interesting reference. SWISSAID uses it in the overview graph above, because it seems to be the most realistic estimate available.

2007–2017

The gold rush triggered a steady rise in gold production between 2007 and 2017. This growth is evident in the data, which reflects the expansion of the number of markets that officially registered gold. However, during certain years, it appears that the actual production may have exceeded the official figures. Some markets were only registered a few years after they began operating, and the quantity of Sudanese gold imported into the UAE, particularly in 2012, was significantly higher than the

gold declared at the production stage. Regarding the official figure for 2017, it seems that it was overestimated (see above).

2017–2020

The sharp decline in production between 2017 and 2020 can be attributed to several factors. According to the SMRC, it is "due to a change in the methodology used to estimate traditional mining production"[10]. While this change undoubtedly had a significant impact, as the calculation for each sack fell from 6 grams in 2017 to 3 grams in 2018, it fails to explain the substantial drop in production between 2019 and 2020 compared to 2018. The Central Bank of Sudan attributes the sharp decrease in 2019 to the "negative effects of the civil unrest in the country" (USGS 2019: 42.2) and, in 2020, to the "political and regulatory imbalances, including the exit of some explorations companies" (CBoS 2020: 157). Several state officials explained to SWISSAID that while the political changes, the protest, and the fuel crisis have all had an impact on the actual reduction in production, the official figures do not accurately reflect the situation[11]. This is confirmed by Sudan Transparency and Policy Tracker (STPT), an anti-corruption organisation. STPT asserts that the decline in official figures was "not due to an actual decrease in production, but rather to weakening government and increasing military control over gold-producing areas and gold production" (STPT and New Features Multimedia 2024). This was illustrated by the disappearance of the National Intelligence Security Service (NISS), which controlled significant portions of the gold sector until 2019, in particular through the International Company, and the growing role played by the RSF, through its main company Al Junaid[12]. The changes in the administration and the lack of data transmission between the markets and the authorities likely also impacted the data for 2019 and 2020[13]. Finally, the fact that CBoS paid fixed prices for gold until 2020 (STPT 2024) and that the price of the yellow metal increased by more than half from August 2018 to August 2020 may also explain the drop in official gold production figures, as this created an incentive for gold smuggling.

Consequently, it appears that production was indeed reduced during those years, albeit to a lesser extent than the statistics suggest. This implies that non-declared production during those years was particularly substantial.

2021–2022

SWISSAID has not had access to data on declared gold production from traditional mining in Sudan in 2022, but this type of production cannot have exceeded the figure for total declared production in that year, which was 41.8 tonnes. In 2021 and 2022, non-declared production was still very high, even though reported production increased by 10 tonnes in 2021 compared to 2020. During the transitional period, which was interrupted in October 2021, an increase in mining operations by non-registered companies affiliated with militia groups has been reported (Chevrillon-Guibert, Ille, and Abdelrahman 2024).

2023

The civil war, which started in April 2023, had a significant impact on traditional mining production. In 2023, the official production decreased to 23.2 tonnes and informal production by traditional miners decreased as well (Chevrillon-Guibert, Ille, and Abdelrahman 2024; Larsen et al. 2024). Only 2 tonnes was recorded as official production for the first five months following the onset of the conflict (April-August 2023) (English News 2022). This reduction was significantly influenced by the insecurity in gold-producing regions, the disruption of specific supplies for production, and the high fuel prices. Both SAF- and RSF-controlled regions were affected. The army conducted aerial attacks in Jebel Marra and the Sango area to curb RSF's source of income, which impacted approximately 100,000 artisanal miners (Chevrillon-Guibert, Ille, and Abdelrahman 2024; Darfur 24 2024). The insecurity also impacted SAF-controlled regions, where miners faced threats and were exposed to gold theft. Mercury and cyanide, which are crucial for gold processing, were challenging to acquire. With the outbreak of war, the state-owned company Sudamin suspended the distribution of chemicals. Consequently, mercury is being smuggled from Libya, Egypt, and Chad, where it is frequently purchased in exchange for gold. The price of fuel surged in the first months of the war: in South Darfur, for instance, the price of the barrel increased from SDG (Sudanese pound) 165 to 750 (Chevrillon-Guibert, Ille, and Abdelrahman 2024). In the Sungu mines, situated in the South Darfur State and under the control of the RSF, fuel scarcity compelled Al Junaid to drastically reduce its workforce to a mere third of its previous size. Consequently, production plummeted to less than a ton per month (Darfur 24 2024). The SMRC's director announced in May 2023 that the mining sector was on the brink of collapse and that the gold circulating in the market was not new gold

but rather gold that had already been extracted (Chevrillon-Guibert, Ille, and Abdelrahman 2024).

2024

Production resumed swiftly in the last months of 2023, once the rainy season ended, and fuel prices returned to reasonable levels (Darfur 24 2024). It rose from only 2 tonnes in the first six months after the start of the war to 6.4 tonnes by the end of 2023 (STPT and New Features Multimedia 2024). Gold production from traditional mining continued to grow and reached a total of 53 tonnes for 2024. This significant rise can be attributed to primarily two factors. The first one is the lowering of taxes and fees imposed on traditional miners, as mentioned by the SMRC (Bloomberg 2025) and researcher Mohamed Salah Abdelrahman[14]. Just before the war, the government imposed a 10 per cent tax on artisanal mining, which discouraged miners from declaring their production[15]. In November 2023, following the adoption of a new tax policy and the restructuring of the SMRC, the tax was abolished, resulting in an increase in the quantities of gold being declared at markets. This measure was taken by the government to increase its control over the gold sector. The second reason for the surge in gold production in 2024 is the substantial increase in the number of miners. In a response to SWISSAID, the SMRC indicated that there had been "an expansion of the production area of traditional mining and the absorption of manpower from other productive sectors such as agriculture and other craft industries, all due to the war"[16].

It is worth noting that since April 2023, official gold production figures no longer include the regions under the control of the RSF. The RSF controls mines in Darfur and West Kordofan, whereas the main SAF-controlled mining areas are in Red Sea, Northern, River Nile and South Kordofan States (Soliman and Baldo 2025). The RSF is the main actor in Darfur, but some artisanal mines in that region are controlled by other armed groups or ethnic militias, like SLA/AW or Sa'ada (Larsen et al. 2024). Gold has been extracted in Darfur for over a decade using various methods, including metal detectors (in the initial phase), digging up rocks, and panning alluvial sands (Chevrillon-Guibert, Ille, and Abdelrahman 2024). Given that the SAF has no control over Darfur, the de facto government doesn't perceive any taxes or revenues from the gold produced in that region (Chevrillon-Guibert, Ille, and Abdelrahman 2024).

Gold produced in RSF-controlled areas in 2024

It is impossible to determine the exact quantity of gold produced in areas under the control of the RSF, but there are estimates — which conflict with one another. The United Nations Panel of Experts on Sudan estimated that the gold extracted from Darfur constitutes 30 per cent of the total gold produced in the country (Larsen et al. 2024). Based on the official figure for gold production in 2024, that would represent around 19 tonnes. Several researchers consider this to be an overestimation. They contend that the actual percentage is lower, given that the main mining areas are located in Red Sea, Northern, River Nile, Kordofan and Blue Nile States (Chevrillon-Guibert, Ille, and Abdelrahman 2024). According to mining expert Abdullah al-Rayeh, between 2015 and 2022, the RSF produced a total of 240 tonnes of gold, averaging an annual production of 32 tonnes (Darfur 24 2024). Researcher Ali Hassouna and an Al Junaid employee estimate that RSF earned close one billion U.S. dollars in revenue from the gold mines under their control in 2024. This is corroborated by a confidential report submitted to the United Nations Security Council, which mentions that USD 860 million worth of gold had been extracted in Darfur in areas controlled by paramilitary groups (Darfur 24 2024). Based on the average gold price in 2024, this corresponds to, respectively, 15 and 13 tonnes of gold. Suliman Baldo and Ahmed Soliman believe these figures are exaggerated. They consider that production is lower than 10 tonnes, citing in particular the sharp production decline at the Jebel Amer mine, and explain that "the processing factories controlled by the RSF in Jebel Amer, North Darfur, Songo, and South Darfur, would produce a maximum of 1 tonne". They doubt that Al Junaid's purchases of gold from independent traditional miners could amount to the difference of 9 tonnes (Soliman and Baldo 2025: 22). Currently, the Songo mines, located in South Darfur, are considered to be the most productive mines under RSF control (Darfur 24 2024). According to Darfur 24, the Al-Junaid company located in that region produced 150 kg of gold per day in 2020 (Darfur 24 2020). While it's difficult to confirm the accuracy of this figure, it's worth noting that if the Al Junaid company had been operational every day of the year at that same level in 2024, its annual gold production would have been around 50 tonnes, which seems very high.

Due to the absence of gold production data from the RSF-controlled area and the controversy around estimates, it is challenging to determine the total gold production in Sudan in 2024. Moreover, a small portion of the gold produced in the

SAF-controlled area remains unreported because it is processed in informal markets. Considering a production estimate of 9–11 tonnes for the RSF's controlled area and an estimate of 5–7 tonnes of non-declared traditional mining, we can estimate that **ASGM in Sudan produced approximately 70 tonnes in 2024**.

Markets

Thirty years ago, artisanal gold was processed at mining sites. However, since the gold rush in the 2010s, processing has shifted to gold markets. Artisanal miners bring their gold rock to these markets and sell it to merchants. At the markets, gold is crushed and processed, particularly using mercury. The artisanal mining markets were developed by traditional miners and later declared official by states governements. Gold markets play a crucial role in the gold supply chain, as evidenced by the army's bombing of gold markets in Daraba, South Darfur (Chevrillon-Guibert, Ille, and Abdelrahman 2024).

According to the Minamata Convention Initial Assessment in Sudan, there were 77 markets located in 14 different states in 2021 (HCENR 2021: 54). Mohamed Salah Abdelrahman estimates that there are currently more than 150 markets; 70–80 of them are "official markets" controlled by the government while the rest are considered informal[17]. Given that gold processing requires large amounts of water, a lot of markets were set up along the Nile. Some artisanal miners thus have to travel several hundreds of kilometres to reach them (RFI 2021). At the markets, miners meet with a lot of different people, including mill owners and workers, investors, traders, company agents, tea sellers, grocery shop owner and other service providers (Rift Valley Institute 2020). Markets are also the place where miners buy the products they need for their daily life and professional activity (Chevrillon-Guibert, Ille and Salah 2020).

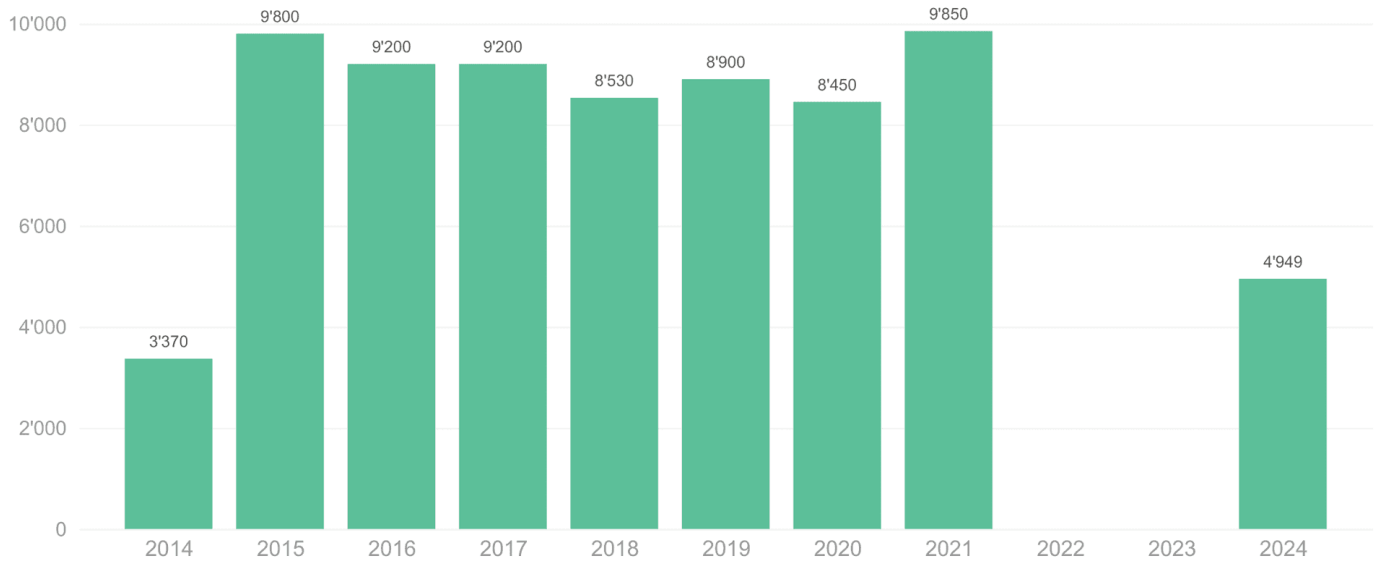
The state doesn't directly control artisanal mining sites, which are often located in remote, desert areas. Instead, it controls the markets where these sites sell their gold. State agents organise and regulate these markets, and collect taxes there. As a result, individuals who want to avoid control and taxation tend to avoid markets (Rift Valley Institute 2020). In the mid-2010s, the SMRC, tasked with supervising the artisanal gold sector, organised markets, took control of them, and introduced taxes. Consequently, the localities responsible for collecting taxes at the markets had to

transfer this responsibility to the SMRC, leading to tensions[18]. Furthermore, miners have expressed disappointment with the services provided by the SMRC, resulting in conflicts between miners and the SMRC (Rift Valley Institute 2020).

MINING WASTE PRODUCTION ("MINING WASTE COMPANIES")

Mining waste companies, also referred to as tailing processing companies, commenced operations in Sudan during the early 2010s[19]. In 2011, Rida was one of the pioneering companies to initiate reprocessing of gold tailings within the country's borders (RIDA Group n.d.). Mining waste companies established themselves near gold markets and developed their business by reprocessing the remaining tailings (locally known as *karta*) from the gold ore processed a first time by artisanal miners. Initially, the tailings were given away for free to the mining waste companies since the artisanal miners were unaware of their value. However, over the years, this practice has changed, leading to a significant competition among mining waste companies looking to acquire these tailings[20].

Gold mining waste production ("mining waste companies") in Sudan



Kilogrammes

Sources: Annual Reports 2020, 2021 & 2024 of the Sudanese Mineral Resources Limited Company

The official production of gold by "mining waste companies" fluctuated between 3,370 kg and 9,850 kg over the period 2014–2024. It remained relatively stable between 2015 and 2021, although data for 2022 and 2023 is not available. However, it decreased in 2024. This type of production accounted for 7.7 per cent of the total declared gold production in Sudan in 2024.

According to several experts interviewed by SWISSAID, the actual gold production by waste companies is significantly higher than what official figures suggest[21]. Their analysis is based on the percentage of gold recovery, which varies depending on the chemicals used. Artisanal miners using mercury can recover only about 30 per cent of the gold from gold rocks, while tailing processing companies using cyanide can recover around 70 per cent of the gold (Abdelrahman 2023; Rift Valley Institute 2020). Given that all tailings from the gold markets are reprocessed, Raphaëlle Chevrillon-Guibert estimates that the amount of gold produced by waste companies in 2024 should be at least as high as the amount of gold declared by "traditional mining" at the markets[22]. Mohamed Salah Abdelrahman agrees with this assessment and points out that most mining waste companies only disclose a small portion of their production, while the majority remains unreported[23].

In 2021, 88 companies were officially registered as "waste companies" and 51 of them were labelled as "productive"[24]. These "productive companies" were active in 9 different states, with River Nile state having the highest number (22), followed by the Red Sea State and the Northern State (7)[25]. According to the government, mining waste companies employed 10,000 workers in 2020 and 60 per cent of their gold production came from River Nile state (HCENR 2021: 74). Ninety-two per cent of these companies were owned by Sudanese companies, while 8 per cent were owned by foreign companies[26]. This is partly because at one point, only Sudanese nationals could obtain mining waste licences[27]. Tailings processing is considered to be a profitable activity given that gold can be extracted at a low cost from tailings, but it require considerable investments. It is estimated that buying a waste mining company cost around USD 2 million in the mid-2010s (Chevrillon-Guibert 2016: 10).

There is currently no publicly available information on the names of registered mining waste companies, but SWISSAID has had access to a former list published on the SMRC website in 2020. In that list, 73 companies are registered as "mining waste companies" and at least 24 companies are active on gold (the type of mineral is not mentioned for all companies). Among the "gold waste companies", one finds Rida, Sudamin, Iron Industry and Mining, International Group and Al Juneid, among others. Some of them have several licences, such as International Group (3) or Al Juneid (4). It is very difficult to know the quantities of gold produced by waste mining companies. Sudamin, for example, produced 185 kg of gold in 2016 and 500 kg in 2017 (USGS 2023).

The control of a substantial portion of mining waste companies has always been closely associated with the elite and the state apparatus. Currently, both the RSF and SAF are involved in controlling mining waste companies. Notably, some of these companies are even located within army bases (Dabangasudan 2023). Regarding the RSF, it is estimated that the Hemedti family and its allies have more than a dozen mining waste company licences[28], particularly those registered with Al Junaid. Controlling such companies is a crucial aspect of the RSF's strategy to control a significant portion of the Sudanese gold sector (Darfur 24 2024).

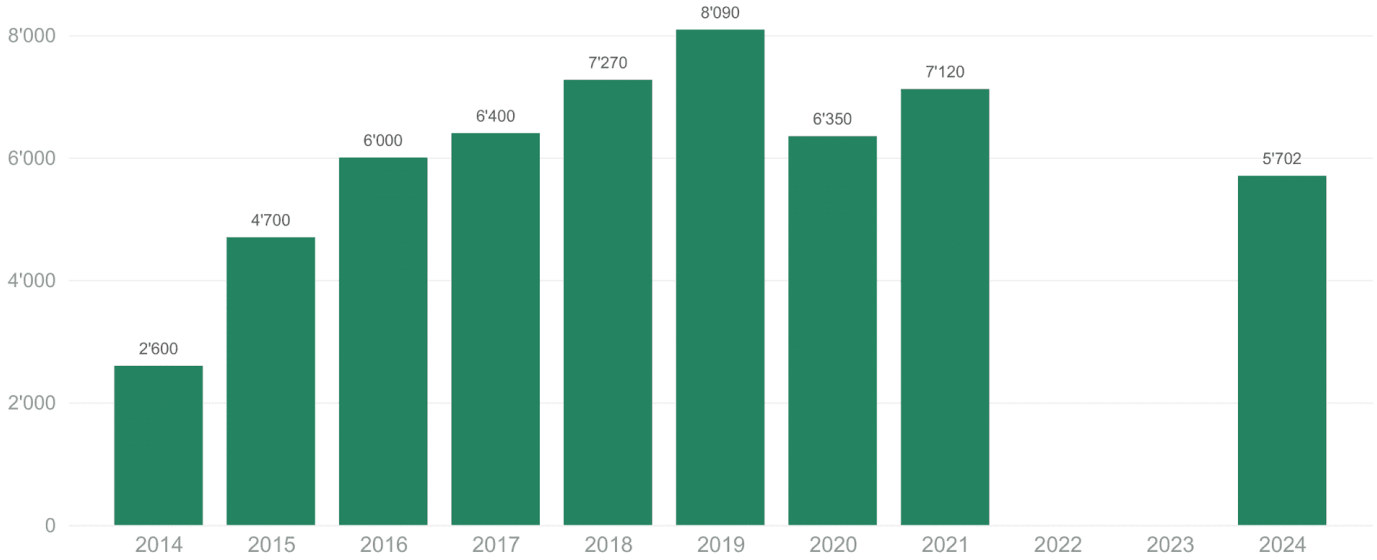
Al Junaid had licences for several processing plants. Information about their precise location is hard to find, but it is known for instance that one of them is situated near

the Aghbash mine. Traditional miners have complained that Al Junaid takes their mining waste without any compensation. However, company representatives have responded that they provide security in the mines in exchange for *karta* (Darfur 24 2020). According to Global Witness, Al Junaid already controlled a large portion of the Sudanese gold sector in 2019 and utilised front companies and banks in the UAE and Sudan (Global Witness 2019).

One of the best-known processing plants in Sudan was Meroe Gold. Also referred to as the Al Ibaidiya plant or "the Russian company", Meroe was a subsidiary of M-Invest, which was owned by Yevgeny Prigozhin (RAND Europe 2024). Based near Atbara, a city 280 kilometres north of Khartoum, the processing plant employed about 30 Russians and 70 Sudanese a few years ago (New York Times 2022). Meroe started operating in 2017 and acted as Wagner's main front company for gold in Sudan (Blood Gold Report 2023). The United States in 2020, followed by the European Union and the United Kingdom in 2023, imposed sanction on Meroe for its link with Wagner (U.S. Department of the Treasury 2020). In response, the Russian paramilitary group transferred Meroe Gold assets to a new entity, Al Sawlaj for Mining Ltd (Blood Gold Report 2023). According to traders interviewed by the New York Times, Russians come to the local markets and buy gold ore, sometimes protected by RSF troops (New York Times 2023). After the beginning of the war in April 2023, Meroe Gold suspended its operations and its Russian staff was evacuated (Bloomberg 2023). At the time of writing, the company had not restarted production[29].

INDUSTRIAL PRODUCTION ("FRANCHISE COMPANIES")

Industrial gold production (“franchise companies”) in Sudan



Kilogrammes

Sources: Annual Reports 2020, 2021 & 2024 of the Sudanese Mineral Resources Limited Company

As the graph above illustrates, the production of gold by “franchise companies” fluctuated between 2.6 tonnes and 8.1 tonnes over the period 2014–2024. The production level rose until 2019 and then slightly declined in subsequent years, although data for 2022 and 2023 is currently unavailable. In 2024, this type of production accounted for 8.9 per cent of the total declared gold production in Sudan. Over the past ten years, its share ranged from 3.5 per cent (in 2014) to 17.8 per cent (in 2020). These figures underscore **the relatively minor role industrial gold mining plays in Sudan’s overall gold production**.

The government of former president Omar al-Bashir attempted to entice foreign companies to boost the country’s industrial gold production and reap associated economic advantages, as it had done with the oil sector. However, these efforts fell significantly short of expectations, primarily due to operational challenges stemming from the sanctions imposed on Sudan and conflicts among local elites regarding profit distribution (Chevrillon-Guibert, Ille, and Salah 2020: 129). Industrial gold production remained below 10 tonnes annually, even as the artisanal sector experienced a gold rush.

In 2021, 146 companies were officially registered as “franchise companies”. While most of them were still at the exploration phase, 15 of them were designated as “producing companies” (2021 SMRC annual report, pp. 50–51). These large-scale

mining companies held concessions spanning over 300 square kilometres in total in the mid-2010s (GRAS 2017: 14). Franchise mining companies are present in 13 states, with the Red Sea state having the highest concentration (61 companies), followed by the River Nile state (27)[30].

It is challenging to gauge the impact of the 2023 civil war on industrial mining companies and their gold production. Most of them were forced to shut down due to security breaches, the departure of foreign workers, and disruptions in the supply of mining chemicals and fuel (Abdelrahman 2023; Soliman and Baldo 2025). According to the Minister of Minerals, 130 concession companies in the exploration phase and 19 nearing the production phase halted operations following the outbreak of the war (STPT and New Features Multimedia 2024). After the largest gold-producing states came under SAF control, the largest franchise companies resumed production, which has been confirmed by the production figure for 2024 (5.7 tonnes) (STPT and New Features Multimedia 2024). According to the SMRC, 75 per cent of gold companies resumed production after the onset of the war[31].

There is currently no publicly available document disclosing the names of registered companies, but SWISSAID has had access to a list published on the SMRC website in 2020. In that list, over 90 per cent of the companies registered as "franchise companies" are engaged in gold production or exploration, while the rest are mainly aiming for copper and iron. The list does not differentiate between franchise companies engaged in exploration and production. Going through the list, SWISSAID was surprised not to find the name Ariab Mining Company. As Enrico Ille, researcher at Leipzig University, explained to SWISSAID this raises questions about the accountability of publicly owned companies[32].

There are three main industrial gold producing companies in Sudan. In 2020, these companies accounted for 94 per cent of the total gold production by all companies holding concessions.

- Ariab Mining Company (AMC) is a state-owned company that operates two large concessions in the Red Sea Hills: Hassai (or Ariab) and Derudeb (Ariab Mining n.d.; Portergeo 2012). With a dozen open pits, Hassai mining area is Sudan's main large-scale gold operation (Ariab Mining 2023; USGS 2022: 2). The company has produced more than 87 tonnes of fine gold since 1992 (Ariab

Mining n.d.). In 2020, AMC produced 1,226 kg of gold (SMRC annual report, p. 17). In 2015, the Sudanese government took full ownership of the company after purchasing the stakes from Egyptian billionaire Naguib Sawiris (La Mancha Resource Capital 2015). AMC described itself as "the only mining operation that has not been disturbed" during the war (Ariab Mining 2023).

- The Moroccan company Managem, through its subsidiary Manub Company, operates the Gabgaba open pit gold mine in the Nubian desert, in northern Sudan. It produced 1,790 kg of gold in 2021 (SMRC annual report, p. 17), 1,494 kg in 2022 and 323 kg in 2023 (Managem Group 2024: 122). The company halted production on 20 April 2023 and resumed slowly in December 2023 (Managem Group 2024: 172 and 123). In 2021, Managem entered a partnership with the Chinese company Wanbao Mining for the development of large-scale gold mining projects in Sudan (Managem Group 2021).
- Kush for Exploration and Production (Kush E&P) and its affiliate Alliance for Mining operate an open pit mine and a gold-processing plant in Red Sea State (Kush E&P and Alliance n.d.). They started producing gold in 2015 (Emiral n.d.) and are, according to their own declaration, "the largest industrial gold producer in Sudan today", with an annual capacity of 2,950 kg (Emiral n.d.). In 2020, Alliance for Mining was the largest gold producer among the franchise companies, with a production of 2.97 tonnes[33]. Control over this mine had geopolitical significance: Kush E&P was owned by the Russian company GPB Global Resources, which was founded by Boris Ivanov, was at the heart of the strengthening of ties between Sudan and Russia and was mentioned as a flagship project by Vladimir Putin in 2019 (Kremlin 2019; New York Times 2024). However, in 2021, the Sudanese government discovered that Kush E&P belonged to a new company, Emiral Ressources, also founded by Boris Ivanov. The Emirati National security adviser, Sheikh Tahnoon bin Zayed, which is also the brother of the country's leader, seems to play a key role behind Emiral Ressources (New York Times 2024). The mine has thus passed in the hands of a company from the UAE, a country supporting the RSF. Kush E&P/Alliance for Mining resumed gold production during the war and exported more than a tonne of gold in 2024 (Bloomberg 2025).

In addition to these three companies, the Ministry of Minerals mentioned a company called Orca Gold in a presentation released in 2017 (GRAS 2017). Perseus

Mining acquired this company while it was still at the exploration phase as well as the Block 14 Project in 2022 (Perseus Mining n.d.). In 2020, Global Financial Integrity listed other industrial mining companies that had received gold concessions or exploration blocks from the government : Delgo Minerals (foreign affiliation: Turkey), Golden United Group, Hagagia Gold Mining (China), Huakan Mining (China), Omdurman Mining, Rida Mining, Sahari Company for Gold Mining, El Nawaty Company, M-Invest (Russia), Miro Gold (Russia), Azhab El Amin Gold Company (Saudi Arabia), Siberian Mining (Russia) and Jin Quiao Mining (China) (Global Financial Integrity 2020: 68-69).

In reality, franchise companies active on gold have other activities than industrial mining. In a response to SWISSAID, Enrico Ille explains that "a review of mining areas active in the 2010s and early 2020s indicates that most of the franchise companies did not build up industrial mining"[34]. Suliman Baldo and Ahmed Soliman made the same observations. They explain that many franchise companies have failed to fulfil their obligation to develop industrial mining operations and have shifted their focus to the processing of artisanal tailings (Soliman and Baldo 2025: 10). Ille asserts that "the main business model of any gold company in Sudan, however it was classified, appears to have been tailing processing, and there is little reason to believe that this has changed since". Accordingly, "the classification imtiyaz, which is translated here as franchise but also means privilege, rather describes how the government was treating the company (in terms of facilitation, exemptions, etc.) and not necessarily how it produced gold".

Ille mentioned the example of Ariab Mining: the company experienced its most productive period in the 1990s and 2000s, but saw its main mining sites decline in the late 2000s. Consequently, it shifted its focus to tailings reprocessing, while simultaneously searching for funding to further develop deeper deposits. Kush E&P also appears to be active in the tailings processing business. This shift from industrial mining to tailings processing shows that companies prioritise short-term, high profits instead of a long-term investment in mining (Soliman and Baldo 2025: 11). The fact that franchise companies' production figures very likely contain significant amounts of gold extracted by traditional miners raises questions about their reliability.

According to the SMRC, the largest foreign investors in Sudan's industrial gold mining sector are Chinese and Russian. They were involved in, respectively, 10 and 5 franchise companies in 2021[35]. Companies based in Gulf states and Turkey are also present in that sector in Sudan. However, SMRC notes that "Foreign companies operating in the sector are weak compared to national companies". The SMRC explains that through "the instability of the political situation and policies related to investment and the fear of investors to enter the country due to the lack of return on investment"[36]. The Sudanese government is still actively seeking to attract all kinds of foreign companies to invest in the country's gold sector (Mining Technology 2024), and the involvement of Russians, in particular, seems to be growing: Sudan's Ministry of Mineral Resources awarded a gold exploration concession to the Russian company Zarubezhgeologia in June 2024 (Al Taghyeer 2024); several other Russian companies have shown interest in beginning gold extraction; and representatives of the central banks of Sudan and Russia have met to discuss the opportunities of financing these activities. According to the NGO Sudan Transparency and Policy Tracker (STPT), the most likely outcome would be an agreement allowing Russia to pay for its gold purchases in roubles and SAF to buy weapons from Russia with that money (STPT and New Features Multimedia 2024).

GOLD IMPORTS

SWISSAID has found no evidence of gold being officially imported into Sudan in quantities of any significance between 2012 and 2023. With one exception, the authorities of the other countries reported exports of less than 70 kg of gold per year to Sudan for the same period, according to UN Comtrade, the United Nations database on international trade. The exception concerns the UAE: the Emirati authorities reported exports of gold to Sudan weighing a total of 4,436 kg and worth USD 251 million to UN Comtrade for the year 2022. SWISSAID has not found any information on these transactions.

Beside declared imports, there are indications that gold was smuggled into Sudan from neighbouring countries between 2012 and 2023. For instance, gold extracted in the north of Niger was smuggled to Sudan via Chad before being exported to the UAE (UNIDO 2018: 29). It has also been reported that gold from Ethiopia, more particularly from the Gambella and Benishangul regions, was smuggled to Sudan (The Reporter Ethiopia 2023; Ethiopian Business Review n.d.). Even Ethiopian Prime

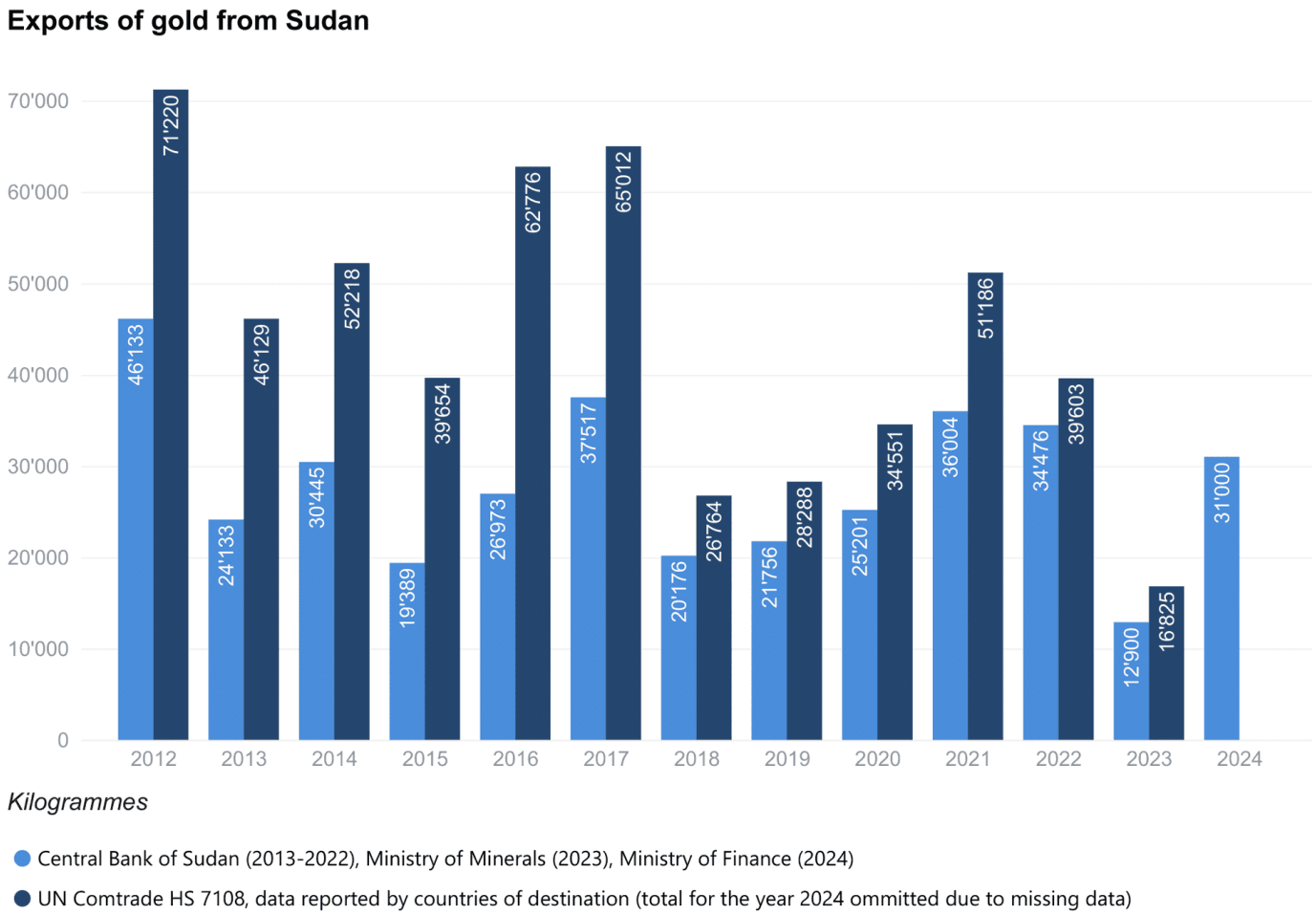
Minister Abiy Ahmed declared that gold from his country ends up in Sudan (Abdelrahman 2023). Ethiopian smugglers are particularly interested in fuel and machine supplies on the Sudanese side (The Reporter Ethiopia 2023; Abdelrahman 2023). According to STPT, the ongoing conflict in Sudan has resulted in a decline in these smuggling activities (Abdelrahman 2023). While practically nothing is known about the scale and drivers of this gold trafficking from Niger and Ethiopia, SWISSAID assumes that the volumes involved are small compared to Sudan's domestic gold production and that the phenomenon faltered or even stopped due to the war.

GOLD EXPORTS

Gold is the country's most valuable commodity since South Sudan became independent in the early 2010s. It is Sudan's top export and main source of foreign currency. In 2024, gold accounted for 50 per cent of Sudan's total foreign export (CBoS 2024: 9). Proceeds from the gold trade are currently used by both the SAF and the RSF to finance the war.

OFFICIAL DATA ON GOLD EXPORTS

The primary source of data on gold exports from Sudan is the Central Bank of Sudan's (CBoS) publications, particularly its foreign trade statistical digests (CBoS n.d.). Available for every year from 2003 to 2024 except 2023, the digests provide data on total exports (by value and weight) and countries of destination (by value).



Figures on annual gold exports reported by the Sudanese authorities fluctuated significantly over the last thirteen years. They ranged between 12.9 tonnes (2023) and 46.1 tonnes (2012). Their mirror image, namely figures on gold imports from Sudan reported by the authorities of the partner countries, also fluctuated a lot, between 71 tonnes in 2012 and 16.8 tonnes in 2023. The discrepancies between the two datasets suggest that large quantities of gold have been smuggled out of Sudan (see explanation below).

The fall in 2023 is clearly linked to the civil war. Officially, only 2.2 tonnes of gold were exported between mid-April 2023 and the end of the year[37]. Monthly data on recorded exports from Port Sudan airport obtained by STPT shows that these exports rose steadily from only 71 kg in October 2023 to 2,000 kg in January 2024 (STPT and New Features Multimedia 2024).

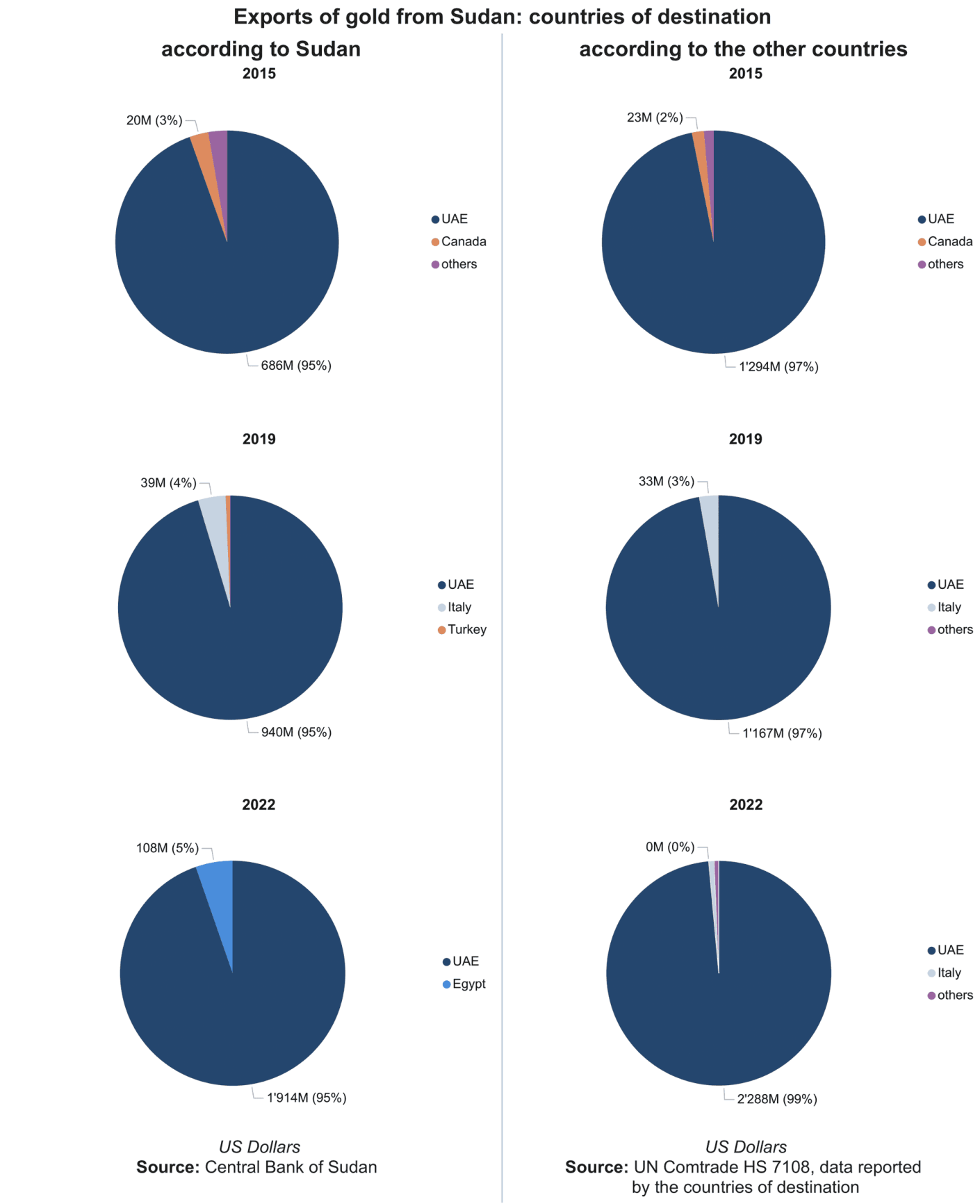
Official gold export figures for 2024 differ depending on the source. According to CBoS, 22.918 tonnes of gold worth USD 1.57 billion was exported that year. These

figures, which originate from Sudan's Custom Authority, are still provisional (CBoS 2024: 9). The SMRC, on the other hand, reported exports of 27.96 tonnes worth USD 1.59 billion[38], and the Ministry of Finance exports of 31 tonnes (CGTN Europe on X.com 2025). It is important to note that, since the beginning of the war, gold produced in RSF-controlled areas does not appear in official export statistics published by the authorities (STPT and New Features Multimedia 2024).

SWISSAID discovered that, while correcting already published data on Sudan's gold exports, CBoS had, in some cases, most likely copied importing countries' figures. In its 2021 Foreign Trade Statistical Digest, the central bank states that Sudan exported 36.004 tonnes of gold in 2021 (CBoS 2021: 9). In its 2022 Foreign Trade Statistical Digest, it corrected this figure to 51.186 tonnes, worth USD 2.848154 billion (CBoS 2022: 13). These corrected figures (the weight and the value) correspond exactly to the total gold imports from Sudan reported by the Italian, Emirati and Turkish authorities for 2021. This is no coincidence. In its 2024 Foreign Trade Statistical Digest, CBoS acknowledged: "the statistics regarding cash crop exports and non-monetary gold are updated based on the most recent information from the United Nations Comtrade database as it becomes available" (CBoS 2024: 5). This method, which basically consists in copying UN Comtrade data and presenting it as one's own, is very questionable, for state authorities are expected to communicate original statistics from their country to UN Comtrade, not use the database as the original source of data.

COUNTRIES OF DESTINATION OF DECLARED GOLD EXPORTS

In its reports, CBoS discloses the destination countries of gold exports from Sudan. However, it only mentions the trade values of these exports; information on their weights is missing. Therefore, SWISSAID had no choice but to use trade values instead of weights for comparing CBoS's figures with those reported to UN Comtrade by the authorities of the destination countries (imports of gold from Sudan).



Both datasets show clearly that almost all the official gold exports from Sudan went to the UAE in recent years. Depending on the year and the dataset, the percentage varies between 95 and 99 per cent.

Since the beginning of the war in 2023, SAF has tried to redirect some gold exports to other countries to reduce the volumes being shipped directly to the UAE, a country accused of supporting the RSF (STPT and New Features Multimedia 2024). Sudanese export data is not available for 2023, so it is impossible to verify if these efforts have been successful in that year, but figures for 2024 do not reveal any shift in the destination: according to CBoS's 2024 figures (which originate from the Sudan Customs Authority), Sudan exported gold worth 1.5 billion to the UAE (96.8 per cent) and only a fraction (3.2 per cent) of the total to other countries (USD 1.2 million to Turkey, USD 7.9 million to Qatar, USD 16.3 million to Egypt and USD 24.6 million to Oman) (CBoS 2024). In brief, the UAE remained by far the main destination for declared gold exports from Sudan at the time of writing.

It appears contradictory that the de facto government in Sudan (SAF), which took the UAE to the International Court of Justice (ICJ) for supporting RSF, who is accused of genocide (ICJ 2025), simultaneously permits gold exports to the UAE valued at over one billion U.S. dollars. Mohamed Tahir Omar, SMRC's Director General, explained that the attractiveness of the UAE for exporters is due to the country's developed financial system and role as a point of access to global markets. He claims that the government is working to open new markets for gold exports, in particular in Qatar, Oman and Saudi Arabia (Al Jazeera 2025). There are also indications that the SAF-led Port Sudan authorities have sought to sell gold through Turkey (Soliman and Baldo 2025: 33).

LBMA data

	Refineries in Europe and Africa		
	LSM	ASM	recycled
2018			2
2019	874		
2020	1 276		
2021	461		
2022	325		

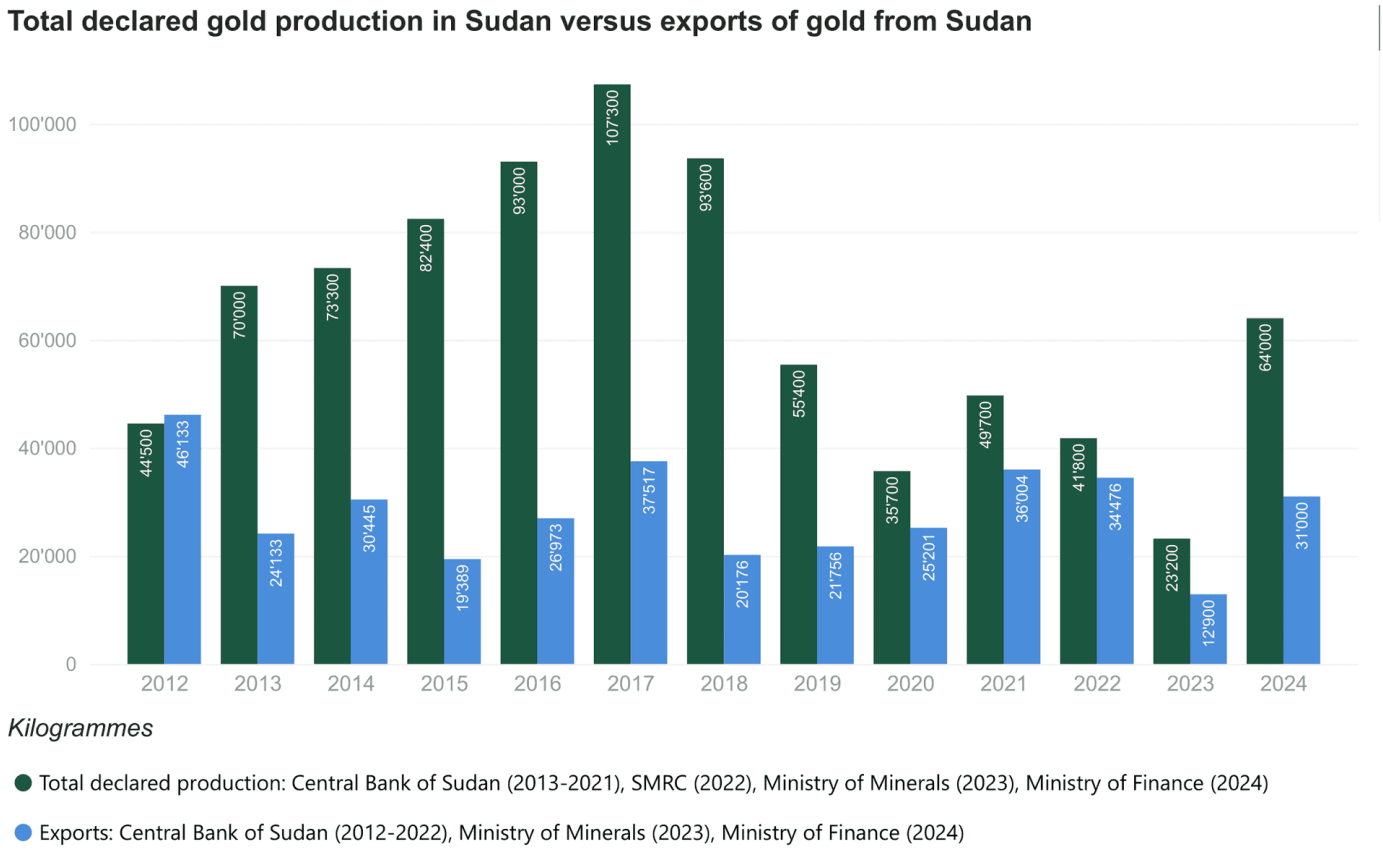
Data released by the London Bullion Market Association (LBMA) [39] shows that refineries certified to the LBMA standard located in the region "Europe and Africa" processed almost exclusively industrial gold from Sudan between 2018 and 2022 (LBMA n.d.). Through a data cross-analysis, SWISSAID found out that this gold had been sent to Italy. A media report published in 2019 indicated that Italpreziosi, an LBMA-certified refinery based in Arezzo (Italy), was sourcing gold from the Gabgaba gold mine in Sudan at that time (Telquel.ma 2019). Contacted by SWISSAID, Italpreziosi confirmed this past business relationship and explained that it used to receive 35 per cent of the gold produced at this mine (SWISSAID 2023). The company added that "an enhanced due diligence process has been performed due to the high risk of the country of origin, though the mining operation is located in the north-east of the country, in Gabgaba, well far from the high-risk areas which have always been affecting the country (such as Darfur, west side, and the border with South Sudan, south side)"[40]. Italian customs statistics suggest that Italpreziosi stopped sourcing gold from this mine in 2022, as they do not bear any trace of gold imports into Italy from Sudan in 2023.

While it seems likely that LBMA-certified refineries have abstained from importing gold from Sudan in 2023 and 2024, there is still a risk that this gold has entered the supply chains of some of them. The risk is particularly high for certain LBMA refineries that import large quantities of gold from the UAE each year (see SWISSAID 2020; Global Witness 2020).

There is ample evidence of massive gold smuggling from Sudan over the last ten years. There is no doubt about the existence of this phenomenon. Even the authorities recognise it: SMRC confirmed it in its 2020 annual report [41] and CBoS acknowledged it in a response to SWISSAID[42]. At a conference in November 2024, Jibril Ibrahim, the de facto government's finance minister, urged the army to take action against gold smuggling (Abdulsalam Fedel on Facebook.com 2024; Darfur 24 2024). A few months later, he added that fighting against gold smuggling is essential to avoid the collapse of the economy, which would lead to the collapse of the army (Sudanese Echoes 2025). In the past, the national director of the Customs Authority had already acknowledged the issue of gold smuggling, specifically identifying the Khartoum airport as a crucial point of smuggling (Independent Arabia 2019; Soliman and Baldo 2025).

The comparison of official figures makes it possible to assess the scale of smuggling. Two types of comparisons can be made: one between the declared gold production and the declared gold exports of Sudan and the other between the declared gold exports of Sudan and their mirror image, namely the imports of gold from Sudan reported by the authorities of the partner countries. Both comparisons reveal large discrepancies.

Comparison between production and export



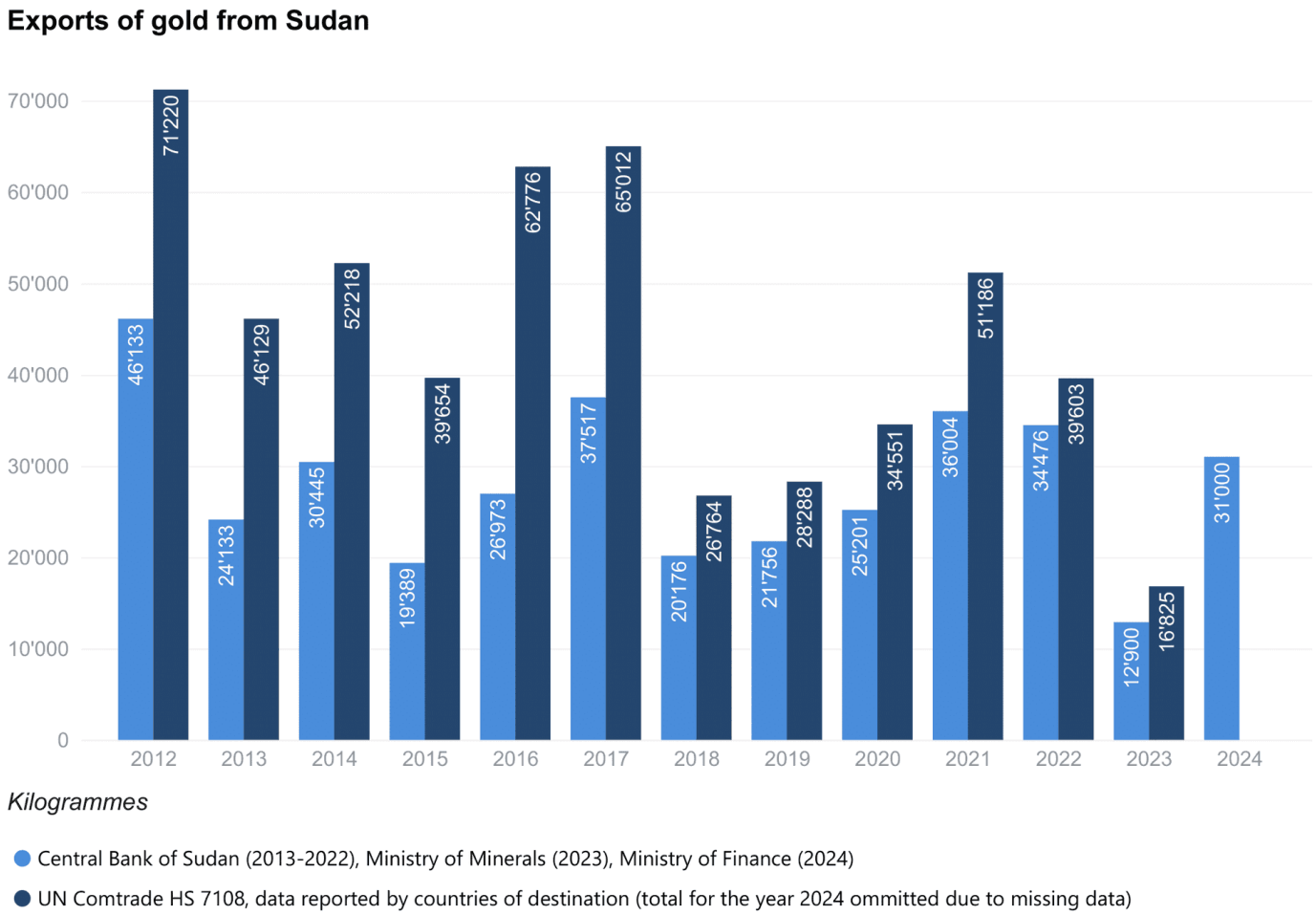
There are striking discrepancies between the gold production and the gold export figures released by the Sudanese authorities. As we can see on the graph above, the size of these discrepancies varies greatly over the years. For almost every year between 2012 and 2024, production is higher than exports. For instance, the discrepancy reaches more than 70 tonnes in 2018. **Between 2012 and 2024, Sudanese authorities recorded total gold production of 834.3 tonnes and exports of only 366 tonnes, resulting in a discrepancy of 468.2 tonnes,** which is very significant.

Contacted by SWISSAID, CBoS explained that this was due "mainly to the smuggling of gold and the local consumption"[43]. SMRC made a similar observation in its 2020 annual report: "we find that the exported quantities are much less than production (...). This loss is represented in the quantities of smuggled or stored gold"[44]. While both state agencies acknowledge that smuggling contributes to the gap, understanding its magnitude requires knowing the quantities of gold that has been stored or consumed locally.

Obtaining reliable data and information on local gold "consumption" and the quantities of gold stored in Sudan (i.e. not exported) is challenging. Nevertheless, STPT believes that domestic gold consumption in Sudan is negligible (Sudan Transparency 2024) and that Sudan lacks a substantial local gold market, unlike its neighbour Egypt, for instance. Moreover, there is no evidence to suggest that CBoS has stored the gold it has purchased in recent years. In 2013, the Sudanese government gave the central bank a monopoly on gold exports. CBoS bought gold from artisanal miners, refined it in Khartoum and exported it. CBoS's monopoly was reduced in 2017 and abandoned in 2020. CBoS's gold was mainly, or even exclusively, sent to the Emirati refinery Kaloti, in Dubai (SWISSAID 2020: 28).

Based on the information it managed to gather, **SWISSAID estimates that at least 400 tonnes of gold have been smuggled out of Sudan between 2012 and 2024**. This is a conservative estimate given that it is based on the official gold production figures, most of which are lower than reality, and assumes that about 5 tonnes of gold is consumed and stored in Sudan each year, when the real figure is probably lower. **About half of these 400 tonnes of smuggled gold has been shipped directly to the UAE and, to a lesser extent, other countries, like Russia, and the other half has been shipped to neighbouring countries before ending up mainly in the UAE**.

Comparison between exports and imports reported by partner countries



The graph above compares the figures on gold exports published by the Sudanese authorities and those on gold imports from Sudan reported by the authorities of the partner countries to UN Comtrade[45]. As one can see, that the latter are consistently higher than the former for all years between 2012 and 2023. During that period, Sudan reported exporting 335.1 tonnes of gold, while the partner countries reported importing 534.2 tonnes of gold from Sudan, resulting in a significant gap of 199 tonnes. This suggests that **approximately 200 tonnes of gold have been smuggled out of Sudan and declared on import in the partner countries, particularly in the UAE.**

The annual gaps were higher between 2012 and 2017 than between 2018 and 2023. Several factors might explain this. One of them could be that between 2012 and 2017, the smuggled gold was mainly transported to countries where it was declared on import, particularly to the UAE, whereas between 2018 and 2023, more smuggled gold was transported to neighbouring countries, or to Russia, where it was not declared on import.

Estimates of total gold smuggling

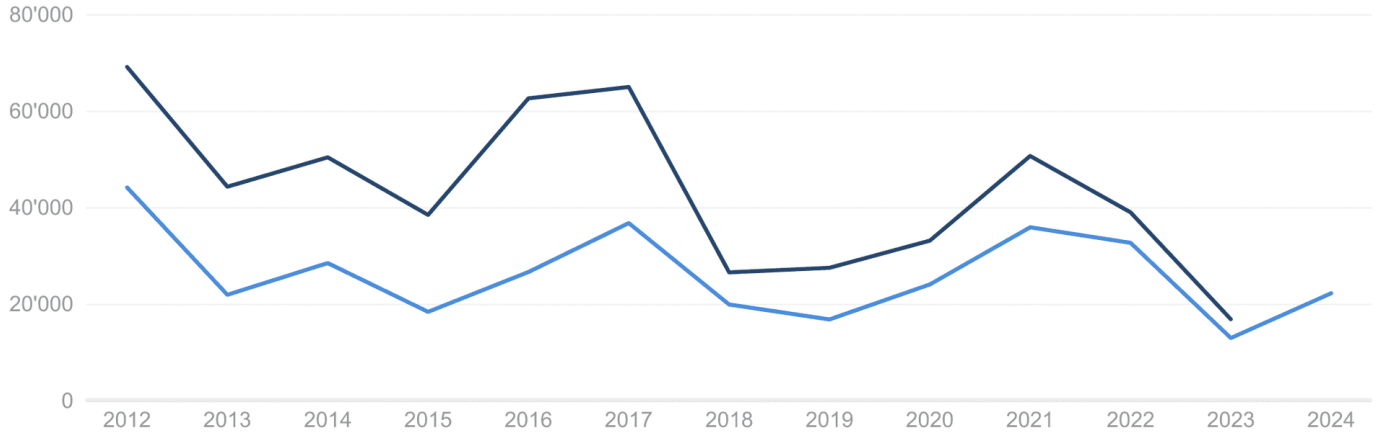
There are several estimates of the percentage of mined gold that is smuggled out of Sudan. An article from the Dabanga radio mentioned an estimate of 50–80 per cent (Dabanga 2022). Mohamed Tahir Omar, SMRC's Director General, puts the figure at 48 per cent (Al Jazeera 2025). The UN Group of Experts on the Sudan mentioned an estimate of 50 per cent (UN Security Council 2024). An expert of the sector mentioned 60 per cent (Sudan Peace Tracker 2025), and STPT and CBoS mentioned 70 per cent (New York Times 2022; STPT 2024). Although the percentage varies from year to year, it is reasonable to assume that it falls somewhere between 50 and 70 per cent.

Given the lack of information about local consumption or storage of the gold produced, it is reasonable to assume that almost all 64 tonnes officially produced in 2024 has been exported. But only 31 tonnes have been declared on export that year (even less based on SMRC or CBoS data). This means that at least 50 per cent of the gold has been smuggled. Furthermore, the official figures do not account for the gold produced in RSF-controlled areas, and a small portion of the gold in SAF-controlled areas has not been declared. Considering these factors, the total production could have reached 75 to 80 tonnes. Consequently, the smuggled portion of the production could be around 60 per cent.

THE MAIN DESTINATION: THE UNITED ARAB EMIRATES

The **United Arab Emirates (UAE) is the main destination for declared gold exports as well as for smuggled gold from Sudan**. Regarding smuggling, the gold is either shipped from Sudan directly to the UAE and declared on import there or smuggled to Sudan's neighbouring countries before being re-exported to the UAE. Direct smuggling is relatively easy to quantify.

Exports of gold from Sudan to the United Arab Emirates versus mirror data: weight



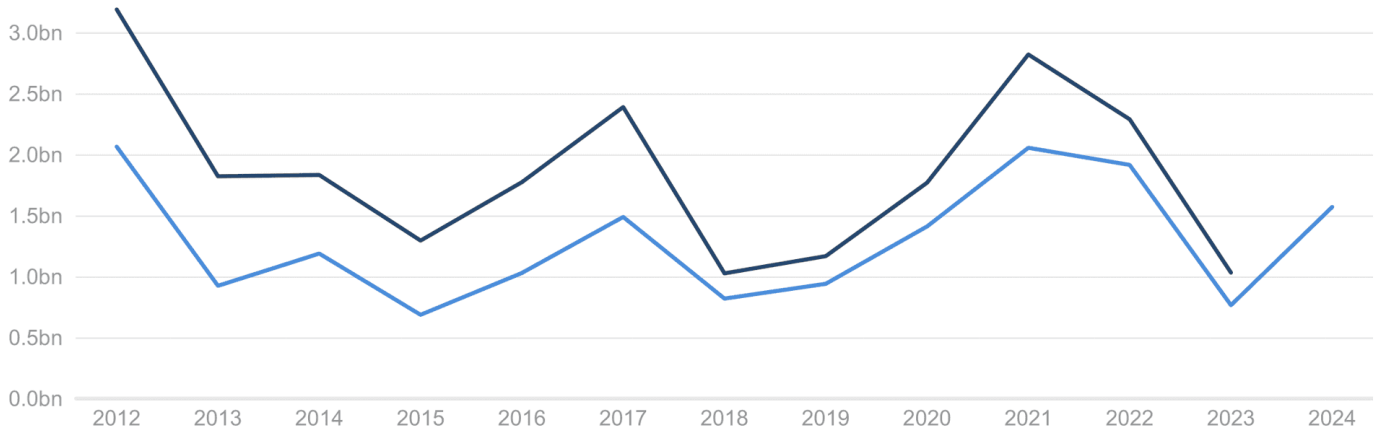
Data reported by Sudan (Central Bank of Sudan, Ministry of Minerals) United Arab Emirates (UN Comtrade HS 7108)

Kilogrammes
Data reported by Sudan: hypothetical weights calculated by SWISSAID based on trade values (2012-2022, 2024: Central Bank of Sudan; 2023: Ministry of Minerals). For 2023, due to a lack of disaggregated data, SWISSAID had to include total exports.

The comparison of Sudanese gold exports to the UAE with mirror data reveals a very large trade gap between Sudan and the UAE. This gap fluctuates significantly from year to year, ranging from 4 tonnes in 2022 to 28 tonnes in 2018. **Between 2012 and 2023, the total gap reaches 182.8 tonnes**. This considerable amount of gold has likely been exported illegally from Sudan and imported legally into Dubai.

Gold smuggling from Sudan to the UAE has been a persistent issue for over a decade and has been extensively documented. For example, the UN Group of Experts on the Sudan estimated that 96.8 tonnes of gold was smuggled from Sudan to the UAE between 2010 and 2014 (UN Security Council 2016: 42).

Exports of gold from Sudan to the United Arab Emirates versus mirror data: trade value



Data reported by ● Sudan (Central Bank of Sudan, Ministry of Minerals) ● United Arab Emirates (UN Comtrade HS 7108)

US dollars

Data reported by Sudan: 2012-2022, 2024: Central Bank of Sudan; 2023: Ministry of Minerals. For 2023, due to a lack of disaggregated data, SWISSAID had to include total exports.

The comparison of Sudanese gold exports to the UAE with mirror data reveal a major gap not only in terms of weight but also in terms of value, as illustrated in the graph above. Here again, the gap fluctuates significantly from year to year, ranging from just over USD 200 million in 2018 to USD 1.1 billion in 2012. Between 2012 and 2023, **the total gap reaches USD 7.1 billion**.

Sudanese authorities have lost substantial revenue from the gold trade over the past decade, not only through smuggling but also in other ways, including with formal and declared gold exports. According to the Sudanese Ministry of Finance, the price of gold sold abroad by CBoS was 10–25 per cent below the market price[46]. Its calculations, included in a document published in 2015, reveal that Sudan had lost USD 1.1 billion over the previous six years due to this price difference. The Ministry states that the lower prices were due to "the risks associated with sanctions and the monopolistic situation of Kaloti Metals". By buying from CBoS in spite of international sanctions, Kaloti was able to make very large profits (SWISSAID 2020: 29).

Companies involved in the Sudanese-UAE gold trade

Given the opacity of the gold trade between Sudan and the UAE, it is difficult to know the names of the companies involved. On the Sudanese side, it seems obvious that the vast majority of the "legal" exporters were involved, since almost all gold is

exported to the UAE. On the UAE side, it is much more difficult to know, particularly for recent years. There is, however, some information.

During the CBoS's monopoly on gold exports (which lasted from 2013 to 2017 and was abandoned in 2020), the Kaloti group was the main importer of CBoS's gold (SWISSAID 2020). Already in 2012, Kaloti was the main importer of Sudanese gold in the UAE, given that it imported at least 57 tonnes from that country during that year (STP n.d.: 37). Kaloti also imported gold from the state-owned Ariab Mining Company (SWISSAID 2020: 31). Besides Kaloti, other companies were active in this trade. The Emirati company Rozella imported Sudanese gold from Algunade (Reuters 2019) and the refineries Al Masqual and Emirates Minting both refined gold from the Gabgaba mine in Sudan (SWISSAID 2023: 24). Several Emirati companies, e.g. Al Zumoroud and Al Yaqoot Gold & Jewellers L.L.C. (AZ Gold), have been sanctioned by the U.S. government for having links with Sudanese companies, particularly in connection with the gold trade (OFAC 2024; OFAC 2025). The U.K. government has also taken sanctions against Emirati companies, such as Tardive General Trading, for their link with Sudan's RSF (OFSI 2024).

According to SWISSAID's research, MTMO, the new Kaloti-owned refinery in the Dubai Multi-Commodities Center (DMCC), imported gold from Sudan until at least 2023[47]. The trading and refining company Al Masqual DMCC imported gold from Sudan until at least 2024[48]. SWISSAID also learned from one of its sources that the Emirati trading companies Actava Trading DMCC, Al Shahir Jewellery LLC and HMB Gold LLC had traded gold from Sudan recently[49]. Actava Trading had already been mentioned in the public domain as having imported gold from Russia in 2023 (Bloomberg 2023). According to the information collected, Nasser Mohamed plays a key role in the Sudanese-UAE gold trade. Part of this trade relies on carriers who bring the gold by plane in hand luggage and involves cash transactions[50].

The Emirati Ministry of Economy recently adopted the Due Diligence Regulations for Responsible Sourcing of Gold. This new regulation, which came into force in January 2023, is based on the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (UAE MOEC 2022). It requires all Emirati refineries to implement five due diligence steps and all Emirati trading companies to implement three due diligence steps. These requirements make it

impossible for Emirati refineries or trading companies to legally import gold from Sudan since the commencement of the conflict in April 2023. The fact that Sudanese gold continued to flow into the UAE in 2024 shows that the Due Diligence Regulations for Responsible Sourcing of Gold has loopholes and is not well implemented. Interviewed by SWISSAID, a representative from the Emirati gold sector confirmed the problem and explained that several Emirati refineries have been declared non-compliant with the new regulation due to their gold sourcing from Sudan[51].

GOLD SMUGGLING TO NEIGHBOURING COUNTRIES

Gold smuggling out of Sudan is not a new phenomenon; it existed long before the current war. However, its size and the number of countries involved have increased since.

RSF, particularly the RSF-controlled Al-Junaid, exported part of its gold from Darfur to Khartoum and Port Sudan before the war. With the bombing of Khartoum International Airport and the control of Port Sudan by SAF, RSF were forced to use other smuggling routes (Darfur 24 2020). Miners in the Sungu region confirmed that Al-Junaid mines located there have an airstrip that allows planes to transport gold out of Sudan. However, since the outbreak of the war, landing there has become too risky (Darfur 24 2024). In October 2024, the RSF took control of Nyala and moved their headquarters to that city. It is unclear whether Nyala's airport is fully functional or not, but Al-Junaid uses the city as a base for its gold trade (Darfur 24 2024). According to security sources, all artisanal mining production in Darfur and Kordofan is smuggled abroad (Al Jazeera 2025).

Smuggled gold takes different routes depending on who the belligerents' allies are. **Gold from SAF-controlled regions is mainly smuggled to Egypt** and, to a lesser extent, Ethiopia and Eritrea. **Gold from RSF-controlled regions** such as South Kordofan and Darfur **is mainly smuggled to Chad, Libya, the Central African Republic and South Sudan.** The bulk of smuggled gold from Sudan to neighbouring countries, estimated by SWISSAID at around 200 tonnes between 2012 and 2023, is **then legally exported or smuggled from those countries to the UAE**. These 200 tonnes represented less than half of the 551 tonnes imported by the

UAE from Chad, Egypt and Libya between 2012 and 2022, according to UN Comtrade data.

Egypt

Since the war began, a portion of the gold that was previously exported to the UAE is now smuggled to Egypt (UN Security Council 2024). There is no precise data on the amounts of gold involved, but there are estimates. The owner of a Sudanese company quoted in a report published in October 2024 believes that more than 25 tonnes of gold has been smuggled to Egypt since the start of the war (STPT and New Features Multimedia 2024). Research based on interviews conducted in September and October 2024 suggests that more than 60 tonnes of gold has been smuggled to Egypt since the war began (Soliman and Baldo 2025). Gebreil Ibrahim, Sudan's Minister of Finance and Economic Planning, declared that 48 tonnes of gold from Sudan has been smuggled to a neighbouring country in 2024 (Sudanese Echoes 2025). It is not known how this was calculated, but there is little doubt that Ibrahim was referring to Egypt[52]. The gold smuggled to Egypt comes from areas under SAF control. According to an STPT estimate, 60 per cent of the gold produced in SAF-controlled areas is smuggled to Egypt (STPT and New Features Multimedia 2024: 9). The percentage seems high and hard to verify, but it is remarkably close to the 48 tonnes proposed by Gebreil Ibrahim. Based on this estimate and the official figure for gold exports in 2024 (31 tonnes), one can calculate that 46 tonnes of gold from SAF-controlled regions were smuggled out of the country that year. This could be partially verified by examining the amount of gold imported into the UAE from Egypt in 2024, but that figure was not yet available at the time of writing.

The smuggling of Sudanese gold to Egypt has increased massively since the outbreak of the war, particularly in 2024, but it already existed earlier. Several articles and reports mention it (AllAfrica.com; Dabanga 2018). The bulk of this gold has always been mined gold. However, it is possible that a small portion in 2023 was stolen old gold due to widespread theft in Sudan (Chevrillon-Guibert, Ille, and Abdelrahman 2024).

It is challenging to pinpoint the exact next destination of the gold that is smuggled out of Sudan and into Egypt. One difficulty is that Egypt's market for gold scrap is rather large. Another is that the Central Bank of Egypt bought huge quantities of

gold in recent years, particularly in 2022. Additional research would be needed to find out if the Egyptian central bank, which increased its gold reserve from 80 tonnes in 2021 to 125 tonnes in 2022 (Trading Economics n.d.), has bought this gold on the local market, thereby very likely sourcing Sudanese gold, or if it has bought LBMA bars on the international market. In 2022 and 2023 (data for 2024 is not yet available), Egypt's gold, excluding industrial gold from the Sukari mine, which was exported to Canada and later to Switzerland, has mainly been exported to the UAE (approximately 15 to 16 tonnes annually) and, to a lesser extent, Turkey (around 1 tonne). Given these circumstances, it is highly probable that the Sudanese gold smuggled into Egypt has ultimately found its way to the UAE.

Gold smuggled from Sudan is sold at very low prices in Egypt. Egyptian traders are thus making significant profits by reselling this gold on international markets at higher prices (STPT and New Features Multimedia 2024). Egyptian and Sudanese security actors, particularly border guards, have been documented to be involved in these operations. Money transfers are often made through banking apps, including Bank of Khartoum's "Bankak" for moving sums from Egypt to Sudan. In some cases, banking apps are used to wire large amounts of money to the UAE. Finally, gold also plays a significant role in human trafficking activities, as Sudanese refugees seeking to reach Egypt are increasingly being asked to pay in gold (STPT and New Features Multimedia 2024).

The surge in gold smuggling from Sudan to Egypt is closely linked to Egypt's robust demand for the yellow metal (Middle East Eye 2024). In the past three years, Egypt's annual gold consumption has consistently surpassed 50 tonnes, as reported by the World Gold Council (World Gold Council 2025). Amidst the escalating gold prices in Egypt, the Egyptian Prime Minister issued a decree in May 2023, exempting gold imports from customs duties (Arab News 2023). This policy move might also have motivated Sudanese gold traders to sell their gold on Egyptian markets.

Ethiopia and Eritrea

A small part of gold from SAF-controlled areas in Sudan is smuggled across the border to Eritrea or Ethiopia (STPT and New Features Multimedia 2024). This smuggling route already existed in the past, as evidenced by several reports (e.g.

Dabanga 2018). It also involved flows in the opposite direction (Rift Valley Institute 2021).

Chad

A significant part of the gold from RSF-controlled areas in Sudan is smuggled to Chad. According to gold traders in Sungu, 80 per cent of RSF gold, which is extracted in regions such as South Kordofan and Darfur, is transported to Chad (Darfur 24 2024). That gold is mainly transported by motorcycle (Al Rakoba 2023; Darfur 24 2020). Several factors are behind these gold flows: the RSF controls large part of the open and extended border with Chad; Hemedti has family relationships with senior Chadian officials (STPT and New Features Multimedia 2024); and Chadian authorities reduced import fees and provided security (Darfur 24 2024).

The smuggling of Sudanese gold to Chad has increased in recent years, but it already existed before the war, as evidenced by several articles and reports (UNIDO 2018: 29; The Sentry 2021: 6; Small Arms Survey 2017: 82).

Most of the gold smuggled from Sudan that passes through Chad eventually ends up in the UAE. The local gold market in Chad is insignificant, and the UAE was the sole importer of Chadian gold in recent years (see country profile Chad). Imports of Chadian gold into the UAE have seen a significant increase, rising from 4.7 tonnes in 2020 to 13 tonnes in 2021, 15 tonnes in 2022 and finally 18 tonnes in 2023. This suggests that Chad's role as a transit country for smuggled gold from Sudan has grown substantially in recent years. The upper limit of the estimated gold production in Chad is 8 tonnes (MPMG 2022: 8, DEELCPN 2022: 27), but a portion of it is smuggled to Libya. Therefore, it is reasonable to believe that between 10 tonnes and 15 tonnes of Sudanese gold transited through Chad in 2023 before being transported to the UAE.

Gold smuggled from Sudan to Chad is usually mined gold. However, in 2023, large quantities of Sudanese refined gold have been identified in Chad. Mujo Press has discovered that gold stamped with Sudan Gold Refinery's mark has been sold in Chad (Mujo Press on Facebook.com 2023; Chevrillon-Guibert, Ille, and Abdelrahman 2024). Based on field research in the Abéché market, Raphaëlle Chevrillon-Guibert confirmed to SWISSAID that significant quantities of Sudanese gold had entered Chad after the outbreak of the conflict in 2023. She claims that a lot of this gold,

which has the form of jewellery and ingots, came from the looting of the banks and Sudan Gold Refinery by RSF. She explained that gold smuggling on the Sudanese-Chad border, although still ongoing, has decreased in 2024[53]. Mohamed Salah Abdelrahman also observed such a decrease, but claims that gold flows between Sudan and Chad are still significant in 2025[54].

South Sudan

A portion of RSF gold is smuggled into South Sudan (Darfur 24 2024). These flows grew after the outbreak of the war (Soliman and Baldo 2025). Some of this gold has been reported to be leaving Darfur for the city of Wau in South Sudan, where it continues to Juba. From there, the gold is exported through Entebbe to the UAE (New York Times 2024).

SWISSAID has not found any information regarding the amounts of smuggled Sudanese gold that enter South Sudan each year. Available trade data shows that the UAE is the only country whose authorities have reported imports of gold from South Sudan in recent years (0.4 tonne in 2022 and 2023). While the local market for gold in South Sudan is insignificant, the country's estimated gold production is around 5 tonnes [55] and a large part of the gold is smuggled out of the country (see country profile South Sudan), in particular to Uganda, Kenya and the UAE. It is therefore difficult to know exactly where the Sudanese gold passing through this country ends up, but most probably in the UAE.

Gold smuggling from RSF-controlled regions to South Sudan is based on pre-existing ties between leaders and senior officials from both sides as well as on the vulnerability of South Sudan's economy. According to Ahmed Soliman and Suliman Baldo, South Sudanese authorities accept that RSF gold transit on their territory because they are highly dependent on oil exports, which pass through pipelines located in RSF-controlled areas (Soliman and Baldo 2025). Moreover, RSF forces are present in South Sudan's Raja County (Soliman and Baldo 2025).

Central African Republic

A small portion of RSF gold passes through the Central African Republic (CAR) (Chevrillon-Guibert, Ille, and Abdelrahman 2024; Africa Defense Forum 2023; CNN 2022). RSF have close connections with Africa Corps in the CAR (STPT and New

Features Multimedia 2024) and control a large part of the border between the CAR and Sudan (Abdelrahman 2023). The gold is transported mainly by motorbike (Darfur 24 2020).

SWISSAID has not found any information regarding the amounts of Sudanese gold that enter the CAR each year. Trade data suggests that the UAE has been the main importer of gold from the CAR in recent years (0.5 tonne in 2021, 1.1 tonnes in 2022 and 1.8 tonnes in 2023), followed by Italy (less than 0.5 tonne per year). The local market for gold in the CAR is insignificant and the country's estimated gold production is around 5 tonnes (IPIS 2019: 36). It is difficult to know exactly where the Sudanese gold passing through this country ends up, but most probably in the UAE.

Libya

A portion of the gold from Darfur and under RSF control is smuggled to Libya (Chevrillon-Guibert, Ille, and Abdelrahman 2024; STPT and New Features Multimedia 2024). This traffic is notably based on the close ties between Hemedti and Haftar, the commander of the Libyan Arab Armed Forces (LAAF), which control half of Libya (STPT and New Features Multimedia 2024). Reports dating back to the mid-2010s already mentioned the smuggling of Sudanese gold to Libya (Small Arms Survey 2017: 82).

It is challenging to determine the annual amount of Sudanese gold that is smuggled into Libya, because Libya acts as a transit hub for gold from various Sahel countries. However, an expert on Libya interviewed by SWISSAID claims that gold flows from Sudan to Libya have increased since 2023, and may have reached approximately 10 tonnes per year[56]. Given that the UAE and, to a lesser extent, Turkey have been the primary destinations for gold imported from Libya in recent years, it is highly probable that Sudanese gold smuggled through Libya eventually ends up in one of those countries. The UAE imported 2.4 tonnes of gold from Libya in 2021, 10 tonnes in 2022 and 12 tonnes in 2023. Turkey imported between 2 and 3 tonnes from Libya during the same period. Moreover, it has been documented that senior commanders of the LAAF, an ally of the RSF, are carrying gold on flights to Dubai and Istanbul (Soliman and Baldo 2025). LAAF also plays a key role in Sudan through the smuggling of fuel to the RSF (ISS 2025).

The case of Russia

Illegal exports of gold from Sudan to Russia have also been documented, but there are still many open questions regarding their magnitude and the mechanisms behind them. The involvement of Russian actors in the Sudanese gold sector started in 2014 (CNN 2022). Initially, Russia gained influence on the sector through its support for RSF. It has been reported that Al Junaid, RSF's main gold trading company, employed several Russian nationals (Darfur 24 2024). However, the death of Wagner's chief Yevgeny Prigozhin led to a change in Russia's position in Sudan, moving from a partnership between Prigozhin and Hemedti, to greater support for General Burhane's SAF (PISM 2024). This shift has notably been driven by Russia's main strategic objective, namely the establishment of a naval base in the Rea Sea, whose coast was under control of the SAF (RFI 2024). However, it is still possible that Russia continues to source gold from both sides of the front line (New York Times 2024).

Shortly after Russia invaded Ukraine in early 2022, one newspaper revealed that the Kremlin had prepared to face expected international sanctions by massively expanding its stock of gold. In an effort to build what the journalists referred to as "fortress Russia", the Bank of Russia increased its purchase of gold from domestic production as well as from foreign sources, including Sudan (The Telegraph 2022). In an update to a list of sanctions against persons linked to the Wagner Group, the Council of the European Union (EU) wrote that "by being affiliated with the Sudanese military, the Wagner Group secured the exploiting and exporting of Sudanese gold to Russia" (EU 2023). The fact that these trade flows do not appear in the official statistics indicates that gold from Sudan is exported to Russia illegally. CBoS's annual Foreign Trade Statistical Digests do not list Russia as a destination country for gold exports, and the Russian authorities do not report any imports of gold from Sudan. Sudan's ambassador to Russia also denied publicly that gold smuggling takes place between the two countries (VoA 2022).

Because illicit gold flows from Sudan to Russia are not visible in trade statistics, estimating the volumes involved is very difficult. One press article quotes a mining insider who believes that about 30 tonnes of gold is smuggled from Sudan to Russia annually. The article concludes that "hundreds of tonnes of illicit gold" may have been smuggled between the two countries "over the last few years" (The Telegraph 2022). Another press article mentioned that Russia is "driving the lion's share of Sudan's gold smuggling operations" (CNN 2022). According to an expert interviewed

by SWISSAID, the smuggling of Sudanese gold to Russia has decreased since the beginning of the civil war in Sudan[57].

There are several assumptions about the routes used to transport this smuggled gold headed for Russia. Some press articles suggest that the gold is transported directly to Russia in small planes from military airports in Sudan (The Telegraph 2022), others mention that gold is transported by military plane to the Syrian city of Latakia, where Russia has an airbase (CNN 2022), yet others claim that this gold likely passes through the UAE (New York Times 2022; VoA 2022). A UAE gold expert confirmed to SWISSAID that a portion of this gold passes through the UAE and transits via Hong Kong before arriving in Russia[58]. This would imply that the estimated volumes of smuggled gold headed for Russia need to be considered as already included in the estimated volumes of smuggled gold headed for the UAE. While the smuggling of Sudanese gold to Russia remains highly opaque, SWISSAID finds it convincing that a large part of this gold may have transited through the UAE.

Explanatory factors for smuggling

Large quantities of gold have been smuggled out of Sudan for over 15 years. This is the result of several factors, including the war, the control of gold by armed groups, deficient governance, corruption, the monopoly of the CBoS, high taxation, and loopholes in customs enforcement.

Corruption and the state apparatus' involvement in gold smuggling have been major issues. The National Intelligence and Security Service (NISS), the SAF, and the RSF have all been implicated in smuggling operations through their respective companies (Soliman and Baldo 2025). It has also been reported that several state officials have facilitated gold smuggling (Independent Arabia 2019; Soliman and Baldo 2025). Salah Manaa, a politician from the Umma Party, made a strong statement in October 2024, claiming that the Port Sudan government's 18-month rule has witnessed more corruption than the 30-year presidency of Al-Bashir (The Cradle 2025).

The heavy taxes and fees have also incentivised gold smuggling. However, the government recently reduced the fees imposed on artisanal mining and on companies (Sudan Peace Tracker 2025). This was done to encourage gold producers

to declare their production and exports in order to increase the tax revenue of the Port Sudan authorities (Soliman and Baldo 2025: 19).

Regulatory shortcomings, such as the lack of a transparent and organised gold trading market, the exclusive role of jewellery traders and Gold Council members as the sole buyers of gold from miners, and the absence of fair buying prices for artisanal gold by CBoS, have also facilitated gold smuggling (STPT 2024). As mentioned above, the regime sought to maintain a monopoly over the trade and export of gold through CBoS: officially, artisanal miners could only sell their gold at fixed prices to the central bank's collection sites located throughout the country. Since CBoS's fixed buying price was below the market price, illegal trade and smuggling flourished (Reuters 2020; STPT 2024).

Refineries

Omar al-Bashir, Sudan's former president, established Sudan Gold Refinery in 2012 in Khartoum as part of a strategic plan to mitigate the loss of revenue from the oil sector. The aim was to combat gold smuggling by processing gold domestically, thereby creating more value within the country (BBC 2012). When it opened, Sudan Gold Refinery was the country's first gold refinery and had a production capacity of 328 tonnes per year (Reuters 2012). At the time of writing, it remained Sudan's only gold refinery. However, an expert consulted by SWISSAID claimed that it had stopped operating since the outbreak of the war[^60].

In May 2023, the RSF seized Sudan Gold Refinery and appropriated 1.6 tonnes of gold belonging to the private sector and 1.3 tonnes of unrefined gold owned by CBoS, for a total estimated value of USD 150 million (Abdelrahman 2023).

To reduce its reliance on the UAE, the Port Sudan authorities have recently signed an agreement with the Qatari government to build a new gold refinery in Qatar, which would source gold from Sudan (Mining.com 2025).

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1. SMRC, 2024 Annual Report.↩
2. SMRC, 2020 Annual Report, p. 27.↩
3. The calculation includes figures from the category "mining waste companies".↩
4. SMRC, 2024 Annual Report.↩

5. SMRC, 2020 annual report.↩
6. SMRC's response to SWISSAID, 5 March 2025.↩
7. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025. See also this passage: "The shift to underground gold mining and the increasing mechanization associated with it are particularly evident if we look at the explosion in the number of licenses granted for artisanal and semi-artisanal mining, which rose from 741 in 2014 to 4,464 in 2015" (Chevrillon-Guibert, Ille and Salah 2020: 8).↩
8. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
9. SMRC's response to SWISSAID, 5 March 2025.↩
10. SMRC, 2020 annual report, p. 8.↩
11. SWISSAID's exchanges with representatives from SMRC, CBoS and Geological Research Authority of the Sudan (GRAS), September 2023 and February 2025.↩
12. SWISSAID's interview with Mohamed Salah Abdelrahman, 3 March 2025.↩
13. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
14. SWISSAID's interview with Mohamed Salah Abdelrahman, 3 March 2025.↩
15. SWISSAID's interview with Mohamed Salah Abdelrahman, 3 March 2025.↩
16. SMRC's response to SWISSAID, 5 March 2025.↩
17. SWISSAID's interview with Mohamed Salah Abdelrahman, 3 March 2025.↩
18. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
19. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
20. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
21. SWISSAID's interview with Mohamed Salah Abdelrahman, 3 March 2025; SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
22. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
23. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
24. SMRC, 2021 Annual Report, p. 56.↩
25. Ibid., p. 56.↩
26. Ibid., p. 59.↩
27. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
28. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
29. SWISSAID's interview with Mohamed Salah Abdelrahman, 3 March 2025.↩
30. SMRC, 2021 Annual Report, pp. 50-51.↩
31. SMRC, 2024 Annual Report, p. 19.↩

32. According to Ille, “AMC produced most publicly available documentation of its operations when it was subject to Canadian administrative requirements between 2006 and 2012, this sharply declined afterwards. Otherwise, it was a governmental 'poster child', especially after it had become fully Sudanese in 2015, but details on its operations were not easily accessible: even the internal concession list of the Sudanese Mineral Resources Company noted only the bare minimum, and reports of the Auditor General were classified. Considering the lack of transparency about many publicly owned companies, this can be interpreted as an instance of how such documentation was considered an instrument of control of "others", rather than ensuring accountability of governmental institutions”. SWISSAID’s exchange with Enrico Ille, 29 March 2025.↩
33. SMRC 2021 annual report, p. 20.↩
34. SWISSAID’s exchange with Enrico Ille, 29 March 2025.↩
35. SMRC, 2021 Annual Report, p. 53.↩
36. SMRC, 2021 Annual Report, p. 53.↩
37. Suliman Baldo’s response to SWISSAID, 20 February 2025.↩
38. SMRC, 2024 Annual Report, Soliman and Baldo 2025: 8.↩
39. The LBMA is the world’s most important industry organisation for gold refiners. The association’s Responsible Sourcing Reports are a key source of information on the destination of gold from individual countries. In these reports, LBMA-certified refiners indicate how much gold they processed from which countries (see LBMA n.d.). However, the data is provided in aggregated form (per country, when four or more refineries are based in the same country, otherwise per region), to avoid disclosing information about individual refineries.↩
40. Italpreziosi’s responses to SWISSAID, 4 November 2022 and 26 January 2023.↩
41. SMRC, 2020 Annual Report, p. 28.↩
42. CBoS’s response to SWISSAID, 24 October 2022.↩
43. CBoS’s response to SWISSAID, 24 October 2022.↩
44. SWISSAID’s translation from Arabic to English. SMRC, 2020 Annual Report, p. 28.↩
45. The Sudanese authorities also reported figures on gold exports to UN Comtrade, but these figures are incomplete for many years and do not seem to be reliable, so SWISSAID decided to use those from CBoS instead.↩

46. The Republic of Sudan, Ministry of Finance and National Economy, "A pilot study on role of mining sector to economic diversification", 9 May 2015, http://www.gras.gov.sd/files/Mining%20Final.pdf, p. 26 (not accessible anymore).↩
47. SWISSAID's interview with a source from the sector, December 2024.↩
48. SWISSAID's interview with a source based in Dubai, February 2025.↩
49. SWISSAID's interview with a source based in Dubai, February 2025.↩
50. SWISSAID's interview with a source based in Dubai, February 2025.↩
51. SWISSAID's interview with a representative from the UAE gold sector, March 2025.↩
52. SWISSAID's interview with Mohamed Salah Abdelrahman, 3 March 2025.↩
53. SWISSAID's interview with Raphaëlle Chevrillon-Guibert, 13 February 2025.↩
54. SWISSAID's interview with Mohamed Salah Abdelrahman, 3 March 2025.↩
55. Ministry of Mining of South Sudan's response to SWISSAID, 6 December 2023.↩
56. SWISSAID's interview with an expert on Libya and the region, March 2025.↩
57. SWISSAID's interview with an expert on Libya and the region, March 2025.↩
58. SWISSAID's interview with an expert from the UAE gold sector, March 2025.↩

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